Exhibit E

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

IN RE: ETHICON, INC., PELVIC REPAIR SYSTEM PRODUCTS LIABILITY LITIGATION	Master File No. 2:12-MD-02327
THIS DOCUMENT RELATES TO THE FOLLOWING CASES IN WAVE 1 OF OF MDL 200:	MDL 2327 JOSEPH R. GOODWIN U.S. DISTRICT JUDGE
HARRIET BEACH v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-00476
SHARON BOGGS, et al. v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-00368
JUDITH BRUHN, et al. v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-00888
JANICE COLONNA v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-01274
MARY F. CONE v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-00261
SANDRA CYRUS v. ETHICON, INC., et al.	CIVIL ACTION FILE No. 2:12-CV-01283

Videotaped Deposition of DUANE PRIDDY, PH.D.
March 8, 2016

AMANDA DELEON, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00358
	)	
ETHICON, INC., et al.	)	
ROSE GOMEZ, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00344
	)	
ETHICON, INC., et al.	)	
DONNA HANKINS, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-01011
	)	
ETHICON, INC., et al.	)	
BETH HARTER, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00737
	)	
ETHICON, INC., et al.	)	
MARY HENDRIX, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00595
	)	
ETHICON, INC., et al.	)	
WILMA JOHNSON	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:11-CV-00809
	)	
ETHICON, INC., et al.	)	
JANET JONES	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00762
	)	
ETHICON, INC., et al.	)	

Videotaped Deposition of DUANE PRIDDY, PH.D.

PAULA KRITZ, et al.
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00938

EDITH NOLAN
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00864

NOEMI PADILLA
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00567

MIRANDA PATTERSON
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00481

REBECCA PRATT
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-01273

STACY SHULTIS
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00654

JANET SMITH
v.
ETHICON, INC., et al.
) CIVIL ACTION FILE
) No. 2:12-CV-00861

Videotaped Deposition of DUANE PRIDDY, PH.D.

RACHEL TAYLOR, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00765
	)	
ETHICON, INC., et al.	)	
PATRICIA TYLER	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00469
	)	
ETHICON, INC., et al.	)	
VIRGINIA WHITE, et al.	)	
	)	CIVIL ACTION FILE
v.	)	No. 2:12-CV-00958
	)	
ETHICON, INC., et al.	)	

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Videotaped Deposition of DUANE PRIDDY, PH.D., taken on behalf of the Defendants, pursuant to the stipulations agreed to herein, before Maxyne Bursky, Registered Professional Reporter, at 111 Perimeter Center West, Atlanta, Georgia, on the 8th day of March, 2016, commencing at the hour of 9:59 a.m.

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INDEX TO EXHIBITS

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Also Present:
PHILIP KIMBALL, Videographer

- - -

(The signature of the witness to the deposition was reserved.)

THE VIDEOGRAPHER: We are now on the record. My name is Philip Kimball. I'm a videographer for Golkow Technologies. Today's date is March 8, 2016, the time is 9:59 a.m. This video deposition is being held in Atlanta, Georgia, in the matter of Harriet Beach versus Ethicon, Incorporated, et al., Case Number 2:12-CV-00476.

This case is being heard in the United States District Court, Southern District of West Virginia at Charleston. The deponent is Duane Priddy.

Counsel, will you please identify yourselves for the record.

MR. HUTCHINSON: Chad Hutchinson, counsel for Ethicon and Johnson & Johnson.

MR. JACKSON: Tim Jackson on behalf of the plaintiffs.

MR. WALLACE: Ed Wallace on behalf of the plaintiffs.

MS. FITZPATRICK: Fidelma Fitzpatrick on behalf of the plaintiffs.

THE VIDEOGRAPHER: The court reporter is Maxyne Bursky and will now swear in the witness.

DUANE PRIDDY,

having been first duly sworn, testifies as follows:

EXAMINATION

BY MR. HUTCHINSON:

Q. Good morning, Dr. Priddy. How are you?

A. I'm doing well.

Q. Good. My name is Chad Hutchinson. I'm counsel for Ethicon and Johnson & Johnson. Do you understand you are under oath?

A. I do.

Q. Do you understand you are giving testimony subject to the penalty of perjury?

A. Yes.

Q. What is your specialty?

A. Polymer chemistry, materials science.

Q. Do you have any subspecialty?

A. No.

(Priddy Deposition Exhibit 1 was marked for identification.)

BY MR. HUTCHINSON:

Q. I have handed you what we will mark as Exhibit 1 to your deposition. Did you bring some documents responsive to that notice?

(Witness reviewing document.)

A. I read through this and I believe the documents provided to you are responsive, yes.

(Priddy Deposition Exhibit 2 was marked for identification.)

BY MR. HUTCHINSON:

Q. You have handed me a flash drive that we'll mark as Exhibit 2.

MR. HUTCHINSON: And, Counsel, I will just retain, since this is my copy, we're going to mark it Exhibit 2, but I'll just retain control over it; is that fair?

MR. JACKSON: That's fine.

BY MR. HUTCHINSON:

Q. What is included on the flash drive that your counsel handed me?

A. A copy of my report, some documents that I have reviewed, my billing record, my time log in this matter. That's all I recall offhand.

Q. Does the flash drive contain all of the

documents that you reviewed and relied upon in reaching your opinions?

A. I believe so.

Q. Have you reviewed this flash drive that your lawyer has handed me?

A. Yes.

Q. Have you been deposed as an expert in the AMS litigation?

A. Yes.

Q. Was that the mesh litigation?

A. Yes.

Q. Were you an expert, a polymer science expert in that litigation?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. How many times have you been deposed in the AMS litigation?

A. Once.

Q. Have you read your testimony transcript?

A. No.

Q. When were you first contacted in this case?

A. I'd say last September maybe.

Q. Of 2015?
A. Yes.
Q. Who contacted you?
A. Mr. Wallace.
Q. What did he ask you to do?
MR. JACKSON: Objection, form.
A. Serve as an expert witness in the Ethicon mesh matter.
BY MR. HUTCHINSON:
Q. Anything else specifically that he asked you to do?
A. No.
Q. Have you ever had any contacts with Mr. Wallace before?
A. Yes.
Q. In the AMS litigation?
A. Correct.
Q. Did you reach opinions similar in the AMS litigation as you have in this litigation?
MR. JACKSON: Objection.
A. I did not review my AMS testimony, so I don't recall.
BY MR. HUTCHINSON:
Q. Did you opine in the AMS litigation that

the mesh degrades with oxidation?

MR. JACKSON: Objection, form.

A. I believe so.

(Priddy Deposition Exhibit 3 was marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, I will hand you what we'll mark as Exhibit 3 to your deposition. Do you recognize that as the report that you submitted in this case?

(Witness reviewing document.)

A. Yes.

Q. Is it complete and accurate?

MR. JACKSON: Counsel, I just want to note on the record that there are two emails at the end of this document which are not part of Dr. Priddy's report.

BY MR. HUTCHINSON:

Q. Doctor, is that complete and accurate?

A. It looks, yes, it looks like I might have to update my list of scientific articles and publications, but other than that, it's accurate.

Q. Are you talking about you need to update your CV in there?

A. Yes.

Q. Otherwise, that report is complete and accurate; is that fair?
A. Yes.
Q. Did anybody else work on that report other than you?
A. No.
Q. How much time did you spend preparing that report?
A. Maybe twelve hours. I'm not sure.
Q. Would the time that you spent preparing that report be reflected on the flash drive that you handed me before the deposition?
A. Probably not completely because normally I under-record the time I actually spend. I actually generally spend more than what I write down.
Q. Why do you under-record your time?
A. Just because I -- I just like to make sure that I'm not overcharging, so I tend to be conservative when I'm recording my time.
Q. Doctor, are all the opinions that you intend to offer in this case included in your expert report?
A. I may end up doing a supplemental report.
Q. But as we sit here right now, are all the

opinions that you have so far included within your expert report marked as Exhibit 3?

A. Yes.

Q. Do you have plans sitting here now to do a supplemental report?

A. Not specifically, but I may.

Q. Why are you considering doing a supplemental report?

A. While I was preparing for my deposition, reading through everything, I just thought it might be wise for me to do a supplemental report in the future.

Q. On what specific issue would you do a supplemental report on, sir?

MR. JACKSON: Objection, form.

A. I'm not sure at this point. Maybe my review of the results in the 80s of Ethicon's research, some things caught my eye that I thought were important and I might generate some opinions about those in the future.

BY MR. HUTCHINSON:

Q. But sitting here today, if you do a supplemental report, it is your plan to do a supplemental report only on the 1980 documents from

Ethicon; is that fair?

MR. JACKSON: Objection, form.

A. At this point, that's -- yeah.

BY MR. HUTCHINSON:

Q. Your reliance list, Doctor, included in your expert report, is it complete and accurate?

A. I believe so, yes.

Q. Your CV that's included in your expert report, is that the most recent version if you added the publications that you referenced earlier?

A. Yes.

Q. What publications would you need to add to your CV to make it current?

A. I published a paper -- well, it was just accepted by the peer reviewers -- that I am going to present at a conference here in May, and I'll add that.

Q. What did you present about?

A. It was understanding the science behind the failure of exercise balls.

Q. Doctor, have you ever published anything regarding mesh or Prolene?

A. No.

Q. Have you ever published anything regarding

polypropylene?

A. Not that I recall.

Q. Doctor, have you ever given any presentations on mesh, Prolene, or polypropylene?

A. No.

Q. Have you ever worked for a medical device company before?

A. Yes.

Q. Did your work focus on mesh or polypropylene?

A. No.

Q. Other than the attorneys here, have you ever discussed your opinions with anybody else?

MR. JACKSON: Objection, form.

A. Are you talking about the opinions in this report?

BY MR. HUTCHINSON:

Q. Yes.

A. No.

Q. Is it fair to say you have never discussed your opinions with any type of scientist or medical doctor or engineer; is that fair?

A. That is correct.

Q. Never communicated your opinions to FDA,

correct?

A. That's correct.

Q. Or any scientific organization?

MR. JACKSON: Objection, form.

A. That's correct.

BY MR. HUTCHINSON:

Q. Doctor, how many hours did you spend reviewing the internal Ethicon documents?

A. I would say probably 14, 15 hours.

Q. Did you sign a confidentiality agreement with respect to the documents you received from Ethicon?

A. Well, I mean, as part of my retainer agreement there's confidentiality in there that I'm not going to share or publish or discuss.

Q. I understand. Is that retainer agreement included on Exhibit 2 which is the flash drive that was handed to me before the deposition?

A. I'm not sure.

Q. Where is the retainer agreement?

A. I would have a copy probably on my computer, or if not, a hard copy in my files.

Q. When is the last time you have seen the retainer agreement?

A. I don't recall.

Q. Any reason to believe that it's been lost or destroyed?

A. No.

Q. Other than your retainer agreement, though, did you sign any type of paper regarding a confidentiality agreement with respect to the Ethicon documents you reviewed?

A. I don't believe so.

Q. Do you advertise your services?

A. Yes.

Q. On the internet?

A. Yes.

Q. Anywhere else?

A. Yes.

Q. Where?

A. I'm listed as an expert on three or four different websites, I believe, that aren't mine.

Q. Other than the internet, do you advertise your services anywhere?

A. No.

Q. Your billing rate is $375 an hour for record review and 550 for testimony?

A. Correct.

Q. You don't consider yourself an FDA expert, do you?

MR. JACKSON: Objection, form.

A. I mean, I have done a lot of interaction with the FDA when I was at Dow, I did a lot of extraction studies and those kind of things to help fill out paperwork for FDA applications.

BY MR. HUTCHINSON:

Q. Do you consider yourself a regulatory expert?

MR. JACKSON: Objection, form.

A. Again, I have done a lot of interaction with government regulatory agencies.

BY MR. HUTCHINSON:

Q. I understand that, but do you hold yourself out as an expert, sir?

MR. JACKSON: Objection to form.

A. With regard to FDA?

BY MR. HUTCHINSON:

Q. Yes.

A. I know a lot about it. That's all I can say.

Q. I understand, but my question is: Do you consider yourself a regulatory or FDA expert?

MR. JACKSON: Objection, calls for a legal conclusion.

A. Let's put it this way: I don't advertise myself as an expert for FDA.

BY MR. HUTCHINSON:

Q. Is there anything on your CV that reflects your expertise as a regulatory or FDA expert?

A. No.

Q. Doctor, you are not a pathologist?

A. I am not a pathologist.

Q. Not a medical doctor?

A. I am not a medical doctor.

Q. Not a toxicologist?

A. No.

Q. Not a biostatistician?

A. What?

Q. A biostatistician?

A. A biostatistician, I do a lot of statistical analysis, but bio, not a biostatistician.

Q. Are you an epidemiologist?

A. No, I'm not.

Q. Are you an expert in biomaterials?

MR. JACKSON: Objection, form.

A. I have done a lot of work with different biomaterials. Again, it's difficult to quantify expert or non-expert, but I have experience working with biomaterials.

BY MR. HUTCHINSON:

Q. So it is difficult for you to quantify whether or not you are an expert in biomaterials? Did I understand your testimony correctly?

MR. JACKSON: Objection, form.

A. It's a non-quantifiable question, in my thinking.

BY MR. HUTCHINSON:

Q. Do you consider yourself an expert, sir, in biomaterials?

MR. JACKSON: Objection, asked and answered.

A. All I can say is I know a lot about biomaterials.

BY MR. HUTCHINSON:

Q. Do you consider yourself an expert, is my question?

MR. JACKSON: Objection to form.

A. I'm an expert in materials.

BY MR. HUTCHINSON:

Q. What about biomaterials?
A. And biomaterials are included in materials.
Q. Are you an expert in biocompatibility?
A. Again, I know a lot about biocompatibility. It's just difficult for me to give a yes-no answer to that when I know a lot about it, but, yeah.
Q. Doctor, are you an expert in the biological response to foreign bodies?
MR. JACKSON: Objection, form.
A. Again, I know a lot about it but I'm not a pathologist, so.
BY MR. HUTCHINSON:
Q. Do you consider yourself an expert in the biological response to foreign bodies?
MR. JACKSON: Objection, form.
A. I'll just say I know a lot about it.
BY MR. HUTCHINSON:
Q. You won't answer that question?
A. I just did.
MR. JACKSON: He just gave the answer.
A. It's not a simple yes-no answer.

BY MR. HUTCHINSON:

Q. Do you consider yourself an expert in the design of surgical mesh?

MR. JACKSON: Objection, form.

A. As far as the design includes materials selection for it, yes.

BY MR. HUTCHINSON:

Q. Do you consider yourself an expert in female anatomy?

A. No.

Q. Doctor, let's talk about the testing you did. You did some accelerated aging testing; is that correct?

MR. JACKSON: Objection, form.

A. The testing I did was called oxidation induction time testing. It is an accelerated test, yes.

BY MR. HUTCHINSON:

Q. And at what temperature did you do it?

A. 200 degrees Centigrade.

Q. Why did you choose that number?

A. Because it's the recommended temperature in the ASTM D3895 OIT testing standard.

Q. And you followed the protocols from the

ASTM D3895 and ASTM 1980, correct?

MR. JACKSON: Object to the form.

A. 1980, no, I did the ASTM D3895.

BY MR. HUTCHINSON:

Q. Did you follow the protocols from the ASTM 1980?

A. I would say no. The 1980 is specific to packaging for medical devices, and so I didn't, since this was not packaging for a medical device, I did not follow that.

Q. Doctor, your expert report, Page 3, states that you followed the Q10 protocol as described in ASTM F1980, correct?

A. Correct.

Q. What was the Q10 protocol that you followed?

A. That protocol is basically a mathematical protocol where you operate under the assumption, and it is an assumption, that the oxidation rate or reaction rate doubles the kinetics of the oxidation reaction, doubles every 10 degrees Centigrade increase in temperature. So that protocol is used to extrapolate from the elevated temperature to make predictions, and I emphasize the word predictions,

because that's all it is, of what would happen at the lower temperatures. So that's what's referred to by the Q10 protocol.

Q. Is the Q10 protocol defined in the ASTM 1980 protocol?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. Is that what you followed?

MR. JACKSON: Objection, form.

A. I followed the Q10 protocol regarding the doubling of reaction rate every 10 degrees. That methodology for calculation is what I followed.

BY MR. HUTCHINSON:

Q. Did you follow anything else from ASTM 1980?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. Are you giving any life expectancy opinions regarding Prolene?

MR. JACKSON: Objection, form.

A. No, other than just general, not specific.

BY MR. HUTCHINSON:

Q. Are your general life expectancy opinions regarding Prolene included in your expert report?

A. My expert opinion is that its life expectancy is not indefinite, that it degrades so it's not going to last forever.

Q. But you are not giving any specific life expectancy opinions, are you, sir?

MR. JACKSON: Objection, form.

A. No.

(Priddy Deposition Exhibit 4 was marked for identification.)

BY MR. HUTCHINSON:

Q. I hand you what we'll mark as Exhibit 4 to your deposition.

(Witness reviewing document.)

Q. This is the ASTM that you followed, correct?

A. Yes.

Q. Is this the version that you followed?

A. I'm not sure if it's the dash 14 version or not. I would think it probably is not the dash 14 version. It's probably an earlier version, because I have been doing OIT for many years, much earlier than 2014.

Q. But 2014 -- or 14, rather, stands for the year, correct?
A. Correct.
Q. You used an older version of the ASTM 3895?
MR. JACKSON: Objection, form.
A. Yes.
BY MR. HUTCHINSON:
Q. Why?
A. Because I have been doing it for many years preceding '14, and once I get the lab set up doing a specific test, following a specific standard in a specific way, I just don't deviate it.
Q. Sir, did you ever compare the version, the older version that you used of 3895 to the most recent ASTM 3895 2014?
A. No.
Q. Are you aware of any changes between those two ASTM protocols?
A. I would have to study it in depth to look for those differences.
Q. But you can't tell us those differences now?
A. No.

Q. Doctor, on Page 2 of your expert report, you did what is called oxidative induction time testing; is that correct?

A. Correct.

Q. You generated some -- I'm going to call that, by the way, OIT for short. Are you and I on the same page?

A. Absolutely.

Q. You generated some OIT values contained in your report; is that right?

A. That is correct.

Q. And you used OIT to compare the oxidative stability of 10 different Ethicon mesh samples?

A. That's correct.

Q. Who conducted the tests?

A. A technician at Materials Engineering, Inc. located in Virgil, Illinois. They are an A2LA certified laboratory.

Q. How far away is that from your office?

A. About 180 miles probably.

Q. Do you know the names of the person who did the testing?

A. Yes.

Q. What were their names?

A. Steve Johnson is the technician that runs that test.

Q. Were you present when Steve Johnson did any of the tests?

A. No.

Q. Did you direct the work of Steve Johnson in any way?

MR. JACKSON: Objection, form.

A. To the extent of how I wanted the mesh samples analyzed, yes.

BY MR. HUTCHINSON:

Q. Did you provide any written correspondence to Steve Johnson on how to do the tests?

A. No.

Q. Do you know how long Steve Johnson took to do the tests?

MR. JACKSON: Objection, form.

A. About a week.

BY MR. HUTCHINSON:

Q. Eight hours a day?

A. I wasn't there to watch him. I don't know.

Q. Do you know how much specific time Steve Johnson did in doing the tests?

A. No.

Q. Has Steve Johnson sent you a bill for doing those tests?

A. I have a credit card on file with him and when he's done, he just charges my card.

Q. Has he charged your card yet?

A. I have to check. I don't recall offhand.

Q. Do you have any idea how much money Steve Johnson is going to charge you to do the tests that are outlined in your expert report?

A. Well, I know that he charges me about $200 to run an OIT test and since he ran these ten tests, I can do the math.

Q. Doctor, do you know if Steve Johnson had any help doing the tests?

A. He has another technician that works with him.

Q. What's that technician's name?

A. It was a new hire. I don't even recall, Mark somebody.

Q. Do you know how this new hire has been trained?

A. I don't.

Q. Have you ever met this new hire?

A. No.
Q. Do you know how much time this new hire named Mark spent on this test?
MR. JACKSON: Objection, form.
A. I don't think he has done anything on the test. I think Steve Johnson did it all.
BY MR. HUTCHINSON:
Q. And Steve Johnson did this DSC test, correct?
A. That's correct.
Q. Differential scanning calorimetry?
A. That's correct.
Q. He used some samples of Ethicon's mesh, right?
A. That's correct.
Q. Did you give the samples to Steve Johnson?
A. I sent them to him.
Q. Is that reflected in the chain of custody documents?
A. It is.
Q. Have you ever received any chain of custody documents from Steve Johnson?
A. No.
Q. Steve Johnson was the one who actually

handled the mesh, correct?

A. That is correct.

Q. Have you ever asked for any chain of custody documents from Steve Johnson?

A. I just talked to him to make sure that he received them. He said yes, I have. But I confirmed his receipt of the meshes that I sent to him.

Q. But you have no chain of custody documents showing what Steve Johnson did with the mesh, correct?

MR. JACKSON: Objection, form.

A. I know he received them and analyzed them and he still has them.

BY MR. HUTCHINSON:

Q. How did you ship the samples to Steve Johnson?

A. UPS.

Q. Where did you get the samples to ship to Steve Johnson?

A. From Fidelma, an attorney.

Q. When did you receive them?

A. I'd have to look at the chain of custody documents. I believe it was mid-December.

Q. What products did you receive?

A. I received six different TVTs and four different Gynemeshes.

Q. Would you describe the Gynemeshes that you received?

A. Describe them?

Q. Yes, sir.

MR. JACKSON: Objection, form.

BY MR. HUTCHINSON:

Q. Describe them for the jury. What did they look like?

A. It's just a strip of polypropylene mesh between, I assume, some stainless steel rods.

Q. How else would you describe the Gynemesh that you received?

MR. JACKSON: Objection, form.

A. That's about all I can say about it.

BY MR. HUTCHINSON:

Q. How was the Gynemesh that you received with the two stainless rods different from the six TVTs that you received?

MR. JACKSON: Objection, form.

A. They both had mesh between metal rods and I didn't specifically study exactly how they were different so I can't answer that question.

BY MR. HUTCHINSON:

Q. So all products that you received had mesh between two stainless steel rods; is that correct?

A. That's my recollection, yes.

Q. Doctor, let's talk about the sampling that was used for the DSC. DSC is a test, by the way, right?

A. Yes.

Q. That's an analytical test?

A. It's a piece of equipment.

Q. And the purpose of the equipment is in essence to melt the product inside, fair enough?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. What's the purpose of the equipment?

A. It's to detect thermal heat flow, whether it be cooling or heating with plastic materials.

Q. But you do that by melting the plastic material, correct?

MR. JACKSON: Objection, form.

A. Not necessarily.

BY MR. HUTCHINSON:

Q. Did you melt the samples that you received

in this case?

A. At 200 degrees, that's above the melting point so they would be melted, yes.

Q. How did you make the specimen sample?

A. It was cut with scissors.

Q. In your lab or in Steve Johnson's lab?

A. Steve Johnson did the cutting.

Q. Were you supervising the cutting of the samples with Steve Johnson?

A. I was not present, but we discussed the protocol of how to collect the samples.

Q. What was the average sheet thickness of the sample?

MR. JACKSON: Objection, form.

A. I don't recall.

BY MR. HUTCHINSON:

Q. Did you ever ask Steve Johnson about what the average sheet thickness was of the sample?

A. I asked him what the thickness was.

Q. What did he tell you?

A. I don't recall. It was less than -- I don't recall.

Q. Why is that not included in your expert report?

A. Because it wasn't relevant to my opinion.
Q. Doctor, was this test sample compressed or molded into a sheet format?
A. No.
Q. Why not?
A. Because that would have given the sample another heat history, and I wanted to have the samples tested in their original use shape as monofilaments.
Q. How many times was the DSC test run?
MR. JACKSON: Objection, form.
A. It's run once, and I had him run it in pure oxygen, switching from nitrogen to oxygen, and I also asked him to run it switching from nitrogen to air, so he ran it twice for each sample.
BY MR. HUTCHINSON:
Q. Do you know how long he ran it in pure nitrogen?
A. You run it for so many minutes until the equipment is stable, get a smooth baseline. That's generally five minutes or so at 200.
Q. But my question is, do you know how long Steve Johnson ran it in pure nitrogen?
A. Whatever the standard dictates, and I

believe it's five minutes.

Q. Do you know how long Steve Johnson ran the sample or ran the test, rather, in pure oxygen?

MR. JACKSON: Objection, asked and answered.

A. It's in the data. Once you switch from nitrogen to oxygen, that's time 0, and then you run it in pure oxygen until the exotherm is over and that gives you your OIT data.

BY MR. HUTCHINSON:

Q. Let's look at Exhibit 4 and turn with me to Page 2.

A. Okay.

Q. Under "9. sampling." Do you see that?

A. Yes.

Q. 9.1 says, "The following sample preparation procedures are recommended: the test sample is compression molded into sheet format."

Did I read that correctly?

A. Absolutely.

Q. Why did you not follow that protocol?

MR. JACKSON: Objection, form.

A. Because it's recommended and, as I said previously, that would require another heat history

on the sample, and I wanted to look at pristine mesh samples in their use state. And I didn't want to alter that.

So that would have affected the results to have done it that way. And I emphasize the word "recommended," because you don't have to do it that way, it's just the recommended.

Q. I understand, but fair to say that you didn't follow the recommended sampling procedure in ASTM 3895, correct?

MR. JACKSON: Objection, form.

A. Absolutely for good reason, it would have affected the results negatively.

BY MR. HUTCHINSON:

Q. Doctor, there is nothing in your expert report about how the samples were prepared, is there?

A. Not in the report directly, no.

Q. Why did you not include that in your expert report?

A. Because it has no bearing on my opinions.

Q. Doctor, did you do any type of statistical calculations to confirm that the results you got from this test that Steve Johnson did were

statistically significant?

MR. JACKSON: Objection, form.

A. What I did do --

BY MR. HUTCHINSON:

Q. We are going to get to what you did do in a minute. I want to know the answer to my question first and then we'll get there.

MR. JACKSON: Counsel, you have to let him answer the question.

BY MR. HUTCHINSON:

Q. Did you do any type of statistical calculations to --

A. Yes.

Q. Are those statistical calculations included in your expert report?

A. No.

Q. Why not?

A. Just didn't include it.

Q. Any reason?

A. No.

Q. What type of statistical calculations did you do?

A. I had Steve Johnson extract the additives from the mesh samples and to determine if the OIT

numbers data gave a correlation with the level of antioxidant in the mesh samples. And the reason I did that is just to confirm that there's a statistical correlation between the level of antioxidant and the OIT values because if there hadn't have been, then I would have been concerned about the validity of the results.

Q. Doctor, let's look at Exhibit 4 for a minute. This is that ASTM 3895.

A. Yes.

Q. Bottom of Page 1, 4.3 states, "Unless otherwise specified, the analysis temperature used in this test has been arbitrarily set at 200 degrees C."

Do you see that?

A. Yes.

Q. That's the temperature you used?

A. Correct.

Q. You used an arbitrary number?

MR. JACKSON: Objection, form.

A. I used the number specified in the standard, yes.

BY MR. HUTCHINSON:

Q. And the number specified in the standard

is an arbitrary number, correct?

MR. JACKSON: Objection, form.

A. It is the number that I run. Every time I do an OIT test I do it at 200 degrees. That's just always the way I run it.

BY MR. HUTCHINSON:

Q. I understand that, but the number that you used is an arbitrary number according to the ASTM standard, correct?

MR. JACKSON: Objection, form.

A. If they -- they define it as an arbitrary number, so.

BY MR. HUTCHINSON:

Q. Doctor, would you ever attempt to publish a paper in a peer-reviewed journal using arbitrary data?

MR. JACKSON: Objection, form.

A. I certainly would attempt to publish an article in a paper based upon following an ASTM standard.

BY MR. HUTCHINSON:

Q. Would you ever attempt to publish anything in a peer-reviewed journal with an arbitrary number?

MR. JACKSON: Objection, form.

A. If it is specified in the standard, yes.
BY MR. HUTCHINSON:
Q. Doctor, your report states that the mesh sample was heated to 200 degrees under pure nitrogen; is that right?
A. Yes.
Q. That's the temperature at which you conducted this aging study?
MR. JACKSON: Objection, form.
A. Correct.
BY MR. HUTCHINSON:
Q. That's also known as the accelerated aging temperature, correct?
A. Yes.
Q. That equates to roughly 392 degrees Fahrenheit?
A. Correct.
Q. That's about 300 degrees Fahrenheit above the normal temperature of a human being; is that correct?
A. Correct.
Q. And it is well above the melting point of Prolene, isn't it?
MR. JACKSON: Objection, form.

A. Yes, it is.
BY MR. HUTCHINSON:
Q. What is the melting point of Prolene?
A. 165 degrees Centigrade approximately.
Q. Doctor, moving to Page 2, at the top under Significance and Use, are you there with me?
A. Yes.
Q. It says, "The OIT is a qualitative assessment of the level (or degree) of stabilization of the material tested."
Do you see that?
A. Yes.
Q. And a qualitative test is different from a quantitative test, isn't it, sir?
A. That's correct.
Q. A qualitative test doesn't give you a lifetime prediction, does it?
MR. JACKSON: Objection, form.
BY MR. HUTCHINSON:
Q. Doctor?
A. It's standard practice to use data from these kind of tests to do lifetime predictions, realizing it's only a prediction. With that understanding that it has to be validated by actual

testing. If there's a red flag there, it will just give you a red flag. And so with that understanding, as I say, I routinely use this test for doing lifetime predictions.

Q. I understand, but with that understanding, a qualitative test does not give you lifetime predictions, does it?

MR. JACKSON: Objection, form.

A. Yeah, It gives you predictions, certainly.

BY MR. HUTCHINSON:

Q. It doesn't give you lifetime facts or lifetime specifics, does it?

MR. JACKSON: Objection, form.

A. Every time you use an accelerated test protocol to get a prediction, it's only a prediction and you have to follow it up with real life, live tests to validate.

BY MR. HUTCHINSON:

Q. And you have to follow it up with real time aging tests, correct?

MR. JACKSON: Objection, form.

A. That is correct.

BY MR. HUTCHINSON:

Q. Doctor, you wouldn't rely on a qualitative

test to determine how long a polymer would retain its physical properties, would you?

MR. JACKSON: Objection, form.

A. I would use it for predictive purposes, yes.

BY MR. HUTCHINSON:

Q. Doctor, let's move on to the top of Page 2. Under Note 2 it states, "The OIT measurement is an accelerated thermal-aging test and as such can be misleading."

Did I read that correctly?

A. Yes.

Q. What does misleading mean?

MR. JACKSON: Objection, form.

A. What they are trying to say there is, if I have different materials, say two different polypropylenes with two different stabilizer packages, one polypropylene has additive stabilizer antioxidant A in it and another one has antioxidant stabilizer package B in it and I run an OIT and I get different values, that it would be misleading for me to say that one is better than the other.

BY MR. HUTCHINSON:

Q. Did you consider this statement before

doing your testing?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. Doctor, one would never expect to use Prolene in the body at 200 degrees C, would they?

A. That's correct.

Q. In fact, you would never expect Prolene to be exposed to a hundred percent nitrogen in vivo, would you?

A. No.

Q. You'd never expect Prolene to be exposed to a hundred percent oxygen in vivo, would you?

MR. JACKSON: Objection, form.

A. Not pure oxygen. I certainly would expect it to be exposed to oxidizing species, but not a hundred percent pure oxygen, no.

BY MR. HUTCHINSON:

Q. Moving on down on Note 2, last sentence it says, "Volatile antioxidants may generate poor OIT results even though they may perform adequately at the intended use temperature of the finished product."

Did I read that correctly?

A. Yes.
Q. Did you consider that before you did your testing, Doctor?
A. Yes.
Q. Do you know whether there is a volatile antioxidant in Prolene?
A. The Santonox R and the dilauryl thiodipropionate, both of those additives are not volatile. At 200 degrees they would not vaporize from the Prolene.
Q. What do you base that on, Doctor?
A. Just my polymer chemistry and experience working with these types of antioxidants.
Q. Did you account for the volatility of DLTDP before you did your testing?
A. Yes.
Q. How?
A. I actually asked the technician to inject a sample of pure dilauryl thiodipropionate -- this is Steve Johnson -- into the gas chromatograph to determine its relative volatility. In other words, you do that by retention time, how long does it take this chemical to -- before it makes its way through the gas chromatograph, and you get a feel for its

level of volatility.

If it comes through in less than 10 minutes, it is volatile. If it takes 20 minutes to come off the GC column, you know that at 200 degrees, it is not volatile. And I did the same thing for Santonox R.

Q. Doctor, did you account for the volatility of any other additives contained in Prolene?

A. No, I was focused on the antioxidant species.

Q. Did you focus any on Procol LA-10?

A. No.

Q. Did you ever focus on calcium stearate?

A. No. Those are lubricants, not antioxidants.

Q. Doctor, the intended use temperature of the finished product, what is the intended use temperature of the finished product?

MR. JACKSON: Objection, form.

A. 37 degrees C or 98.6 Fahrenheit.

BY MR. HUTCHINSON:

Q. It is not 200 degrees C, is it?

A. No.

Q. Doctor, moving on down to Note 3, "There

is no accepted sampling procedure, nor have any definitive relationships been established for comparing OIT values on field samples to those on unused products. Hence, the use of such values for determining life expectancy is uncertain and subjective."

Did I read that correctly?

A. Absolutely, yes.

Q. Doctor, what would the field sample be in this particular case?

A. The Prolene mesh.

Q. It would be an explant, correct?

MR. JACKSON: Objection, form.

A. No, it's a virgin, unused implant.

BY MR. HUTCHINSON:

Q. That's what you consider to be a field sample?

A. Yes.

Q. What's the difference between a virgin, unused piece of Prolene and an unused product?

MR. JACKSON: Objection, form.

A. There is no difference.

BY MR. HUTCHINSON:

Q. Doctor, the ASTM that you quote says

there have been no definitive relationships established for comparing values on field samples to those for unused products.

MR. JACKSON: Objection, misstates witness testimony.

BY MR. HUTCHINSON:

Q. That's what the ASTM says, correct?

A. Okay.

Q. And in fact, Doctor, there's been no definitive relationships established for comparing the OIT values of explant to mesh that's never been used in surgery; is that fair?

A. That is fair, yes.

Q. In fact, Doctor, can you stand by your opinions to a reasonable degree of scientific certainty, given that the ASTM that you used says "determining life expectancy is uncertain and subjective"?

MR. JACKSON: Objection, form.

A. I'm sorry, I don't understand that question. Would you repeat it, please?

BY MR. HUTCHINSON:

Q. Can you stand by your opinions, given that the ASTM that you used says "determining life

expectancy is uncertain and subjective"?

MR. JACKSON: Objection, form.

A. What I can say is this, the life expectancy is uncertain, that's correct.

BY MR. HUTCHINSON:

Q. And the life expectancy is also subjective, isn't it, sir?

MR. JACKSON: Objection, form.

A. All I can say is in a nutshell, this data shows that the Prolene material will not last indefinitely in the body. It is susceptible to oxidative degradation over time.

BY MR. HUTCHINSON:

Q. But the life expectancy is subjective, isn't it, sir?

MR. JACKSON: Objection, form.

A. It is subject to the conditions in the body, yes, certainly.

BY MR. HUTCHINSON:

Q. It is also subjective according to the ASTM protocol, correct?

A. It's always subjective, lifetime of any article is subject to the conditions that the part is under, exposed to.

Q. Doctor, would you ever publish anything in the "American Chemical Society" journal that was uncertain and subjective?

MR. JACKSON: Objection, form.

A. Yes, I would.

BY MR. HUTCHINSON:

Q. Doctor, moving on down to Note 7, it states, "The material composition of the specimen holder can influence the OIT test result significantly."

Do you see that?

A. I'm sorry, where are you at?

Q. At the bottom of Page 2, note 7.

A. Reagents and Materials?

Q. No, bottom of Page 2. It says, "The material composition of the specimen holder."

Do you see that?

A. I'm sorry, I'm still not with you. Could you point to where you?

Q. I'll be happy to.

A. Okay, thank you. Okay.

Q. Do you see that, Doctor?

A. Yes.

Q. What type of specimen holder was used by

Steve Johnson?

A. It's called a DSC pan.

Q. What is the DSC pan that Steve Johnson used made out of?

A. He told me. It's in the report and I don't recall offhand.

Q. It is in your expert report?

A. No, it's in his report to me.

Q. Steve Johnson prepared a report and gave it to you?

MR. JACKSON: Objection, form.

A. It's data. He gives me the data with a little note and it tells what the pan is, but I don't recall offhand what the pan is.

BY MR. HUTCHINSON:

Q. Where is the data that Steve Johnson gave you?

A. It would be on my computer.

Q. It is not included on this flash drive, is it, sir?

A. It probably is.

Q. Can you testify under oath that this data that Steve Johnson gave you is contained on this flash drive?

MR. JACKSON: Objection, form.

A. Not without checking to confirm for sure. I believe I put it on there.

BY MR. HUTCHINSON:

Q. Doctor, sitting here today, can you tell us the type of specimen holder that Steve Johnson used?

A. A DSC pan, and I don't recall what the metal was.

Q. Do you know if Steve Johnson used more than one specimen holder?

A. The little DSC pans are disposable. In other words, for the OIT test, he uses a specific type of pan that he knows to be, not influence the data and that's the type of pan he uses. I just don't recall offhand what the metal is.

Q. Doctor, have you done anything to determine if the specimen holder that Steve Johnson used affected the results?

MR. JACKSON: Objection, form.

A. As I say, he in the past has run tests, since he runs the OIT for me all the time, to confirm the OIT test as he runs it is unaffected by the pan that he uses. It's just I don't recall what

metal it is.
BY MR. HUTCHINSON:
Q. I understand that, Doctor, but I'm asking you, have you done anything personally to determine if the specimen holder that Steve Johnson used affected the test results?
A. I don't run DSC, so technicians do that.
Q. Have you done anything, sir, personally to determine if the specimen holder affected the results?
MR. JACKSON: Objection, asked and answered.
A. As I say, it was done in the past, on past projects.
BY MR. HUTCHINSON:
Q. I am talking about this project, sir. Have you personally done anything to determine if the specimen holder affected the results, yes or no?
MR. JACKSON: Objection, asked and answered.
A. In the sense that I made sure that he is using his standard pan under the standard operating procedures for the laboratory as an A2LA certified laboratory. They are annually audited, all their

processes checked by auditors.

And so the DSC pan is always the same. It's been confirmed by him not to affect the results. That's the pan he used. I just can't recall what the metal is offhand.

Q. That's right. But my question to you is: Have you personally -- I'm not talking about Steve Johnson, I'm talking about you personally -- have you personally done anything to determine if the specimen holder affected the results?

MR. JACKSON: Objection, asked and answered.

A. Other than how I have just answered it, no.

BY MR. HUTCHINSON:

Q. Doctor, can you use your DSC data to make lifetime calculations when one is in pure oxygen and the other is implanted in vivo?

MR. JACKSON: Objection, form.

A. I wasn't trying to do that. That wasn't the purpose. My purpose for running the test was to look at variability of ten different mesh samples. That was my intent. And so I was looking to see if, when these different samples with the same

antioxidant formulations in them, when they are suddenly exposed to oxygen, do they have the same OIT value or is it extremely variable. And I saw up to 150 percent variability from the low to the high end.

The key message is that these implants have variability in their oxidation resistance. They aren't all the same. That's it. That's the only message that I was trying to figure out there.

(Priddy Deposition Exhibit 5 was marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, handing you what we'll mark as Exhibit 5 to your deposition. This is the ASTM that you quoted in your expert report, correct?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. I believe it is your testimony, you didn't follow this ASTM 1980 protocol; is that right?

A. The only portion that I followed is this Q10 estimate for trying to get a feel for predicting lifetimes.

Q. Why didn't you follow anything else?

MR. JACKSON: Objection, form.

A. Because it's not a -- it has to do with sterile medical device packages, not what's inside. So it's really not a standard that's directly applicable to this situation.

BY MR. HUTCHINSON:

Q. Doctor, fair to say you never did any real-time aging studies to confirm the accelerated aging study results that you generated, correct?

A. That is correct.

Q. All of the studies that you did are contained in your expert report; is that correct?

MR. JACKSON: Objection, form.

A. I mean, I mentioned a few minutes ago, I ran the OIT test under pure oxygen and then switching from nitrogen to air, and I believe that's the only deviation that was done that wasn't included in the report.

BY MR. HUTCHINSON:

Q. Doctor, turn with me to Page 2.

A. Of?

Q. Of Exhibit 5 which is ASTM 1980.

A. Yes.

Q. There on Page 2, note 6.4, this is a

protocol that you followed in determining the Q10 level, correct?

MR. JACKSON: Objection, form.

A. Q10.

BY MR. HUTCHINSON:

Q. Am I correct?

A. Not really, because they talk about three temperatures here and I only ran one temperature, 200.

Q. Doctor, did you follow any type of protocol in your Q10 calculations for determining the temperature that you used?

MR. JACKSON: Objection, form.

A. The temperature that I used?

BY MR. HUTCHINSON:

Q. Strike that. What did you use Q10 for?

A. The only portion of this that I used was just what I described earlier, the doubling, approximately doubling of reaction rate every 10 degrees. That's the only -- I just referenced this to support that concept for doing that crude calculation. That's all.

Q. Doctor, the double reaction rate for every 10 degrees, is that based on any ASTM standard?

MR. JACKSON: Objection, form.

A. No, it's just a normal, understood scientific principle that reaction rates approximately double every 10 degrees.

Q. Is that based on any scientific literature that you can tell me sitting here today?

A. I could, if I was pressed to do so, I could come up with textbook references, organic chemistry 101, polymer chemistry 101 where they teach this doubling of a reaction rate every 10-degree principle. As I say, it's crude and it's just for ballpark, is there a flag, kind of calculations.

Q. But it is your testimony, if I understand it, under oath that ASTM 1980 does not apply to the testing you did, correct?

MR. JACKSON: Objection, form.

A. Yes, because it's for packaging. The only reason I reference it is because of that Q10 doubling of reaction rate principle.

MR. JACKSON: Chad, we have been going just about an hour. Are we at a good time for a break?

MR. HUTCHINSON: One more thing and

we'll take a quick break, okay?

(Priddy Deposition Exhibit 6 was marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, handing you what we'll mark as Exhibit 6 to your deposition. This is the de la Rie article that you quoted in your expert report; is that correct?

(Witness reviewing document.)

A. Yes.

Q. Did you read this before you quoted it in your expert report?

A. Yes.

Q. Turn to Page 17 with me, please.

A. Okay.

Q. At the bottom of the column on the left, the paragraph starting out with "Materials," are you there with me?

A. Yes.

Q. It states, "Materials which are not exposed to light" -- and by the way, mesh when planted in vivo is not exposed to light, is it?

MR. JACKSON: Objection, form.

A. No. Not while it is in vivo, it is not.

BY MR. HUTCHINSON:

Q. "Materials which are not exposed to light during their normal life could be tested in heat aging experiments."

In fact, that's what you did, correct, a heat aging experiment, correct, on mesh?

MR. JACKSON: Objection, form.

A. Yes, I did.

BY MR. HUTCHINSON:

Q. It goes on to say, "But if temperatures are used which are considerably higher than the ones the material is exposed to under normal circumstances, the danger exists of introducing new degradation reactions."

Did I read that correct?

A. Yes, you did.

Q. Doctor, did you consider that before you did your accelerated aging tests?

A. Yes.

Q. Did you know what de la Rie said about using higher temperatures?

A. Yes.

Q. How did you account for that?

A. By stating that it is only a rough

approximation and has to be validated with actual real-time studies because of this possibility.

Q. Doctor, did you do any type of calculation regarding the Arrhenius rate reaction for polypropylene?

MR. JACKSON: Objection, form.

A. That has been done in the literature before.

BY MR. HUTCHINSON:

Q. I am asking you: Did you do any calculation for the Arrhenius rate reaction for polypropylene?

MR. JACKSON: Objection, form.

A. Not on my data, no, I couldn't, because I only ran at one temperature. I did not run at three temperatures. You have to run at three temperatures to do the Arrhenius calculations.

MR. HUTCHINSON: We can take a quick break.

THE VIDEOGRAPHER: We are now off the video record. The time is 10:01 a.m.

(Recess.)

THE VIDEOGRAPHER: We are back on the video record with Tape Number 2. The

time is 10:08 a.m.

BY MR. HUTCHINSON:

Q. Doctor, we are back on the record. Have you understood all my questions so far?

A. Yes.

Q. Is there anything about the testimony that you have given that you would like to change?

MR. JACKSON: Objection, form.

A. Not at this point.

BY MR. HUTCHINSON:

Q. Turn with me to Exhibit 2. That's your expert report.

A. Okay, got it.

Q. On Page 3 you state you are a plastics consultant for medical supply companies?

A. Yes.

Q. What type of products?

A. Oh, boy.

Q. Let me ask you this: Any products regarding polypropylene?

A. I mean, I have done materials selection work for Baxalta.

Q. Let's focus on polypropylene.

A. I considered polypropylene as I was

selecting material, so they just asked me to recommend a material for a certain application. And I considered polypropylene and ruled it out, just didn't have the right properties for the application.

Q. Doctor, have you ever selected a polymer that has a lifetime warranty?

MR. JACKSON: Objection, form.

A. I don't believe so.

BY MR. HUTCHINSON:

Q. Doctor, would you ever guarantee to the recipients of these medical devices that you consulted for, would you ever guarantee to them that their material would never oxidize?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. Doctor, on Page 3 of your expert report, you reference ISOT. That stands for incipient surface oxidation time; is that correct?

A. Yes.

Q. Is ISOT in any ASTM standard?

A. It is nowhere. That is my own acronym.

Q. Doctor, you didn't use a publication to

come up with your own acronym, did you?

A. I did not.

Q. You made it up just for this experiment, didn't you?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. Where did you come up with your own acronym?

MR. JACKSON: Objection, form.

A. As I say, I have been using OIT testing for years.

BY MR. HUTCHINSON:

Q. I want to talk about ISOT.

A. Yes, I know. And as part of that, I look at the shape of the OIT curve because normally it is a nice, smooth transition with two slopes and when you get the baseline meandering around and doing strange things, you know that there's something going on that's not normal. And so I always, just for my own thought processes, identify the point to where something chemically starts to happen and I call that the incipient oxidation point.

Q. But that's something you made up?

A. I did, yes.
Q. Doctor, if you look at Page 5, it states, polypropylene is subject to degradation or weakening by oxidative agents.
A. Where are you at now?
Q. Page 5.
MR. JACKSON: Chad, can you let us know which paragraph you are on?
MR. HUTCHINSON: Yes, I'm sorry. Second paragraph, second sentence.
THE WITNESS: Okay.
BY MR. HUTCHINSON:
Q. It states, the "chemical reactions continue to occur so long as any oxidizing agents, such as those present in the human body, are present." Do you see that?
A. Yes.
Q. Doctor, what are the names of the oxidizing agents?
MR. JACKSON: Objection, form.
A. Excuse me?
Q. What are the names of the oxidizing agents that you reference here?
MR. JACKSON: Objection, form.

A. Are you talking about in the human body?
BY MR. HUTCHINSON:
Q. Yes, sir.
A. Hydrogen peroxide, there's all sorts of oxidizing agents.
Q. All right, hydrogen peroxide. What else?
A. Again, I'm not a medical doctor or a pathologist, but I have read many reports that refer to oxidizing agents being present in the body, especially with foreign body reactions. The body will generate oxidizing species.
Q. Those are called reactive oxygen species, correct?
A. Right, ROS.
Q. My question to you is, though, can you name the oxidizing agents that you are aware of in the human body?
MR. JACKSON: Objection, asked and answered.
A. I just named one, hydrogen peroxide.
BY MR. HUTCHINSON:
Q. Can you name any others?
MR. JACKSON: Objection, asked and answered.

A. There's all sorts of peroxidases which are oxidative enzymes.

BY MR. HUTCHINSON:

Q. Other than hydrogen peroxide and enzymes, can you name any other type of oxidizing agents?

MR. JACKSON: Objection, misstates witness testimony.

A. Oxygen.

BY MR. HUTCHINSON:

Q. Anything else?

A. That's all I can recall at this point.

Q. Doctor, do you know the amount of hydrogen peroxide that's secreted in the body?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. Can you quantify it?

MR. JACKSON: Objection.

A. I cannot.

BY MR. HUTCHINSON:

Q. Have you ever attempted to quantify it?

A. No.

Q. Have you ever used any type of concentration of hydrogen peroxide to determine how

it affects Prolene?

A. I have not done that.

Q. Doctor, do you have any idea how many or what type of -- strike that.

Do you have any idea of the amount of enzymes, oxidizing enzymes that are secreted from the body?

MR. JACKSON: Objection, form.

A. I have never measured it, no.

BY MR. HUTCHINSON:

Q. To your knowledge, has it ever been quantified?

A. I do not know.

Q. Doctor, sitting here today, can you quantify the amount of oxidizing agents that are produced by the human body?

MR. JACKSON: Objection, asked and answered.

A. Are you asking have I done it or could it be done?

BY MR. HUTCHINSON:

Q. I am asking, have you done it?

A. I have not done it.

Q. Do you know the amount of oxidizing agents

produced by the human body?

MR. JACKSON: Objection, asked and answered.

A. No.

BY MR. HUTCHINSON:

Q. Doctor, do you have any opinions regarding the quantity of oxidizing agents it would take to oxidize Prolene?

A. Well, Prolene is an oxidizable material, so any oxidant is capable of oxidizing Prolene.

Q. My question, sir: Do you have any idea about the concentration level of oxidizing agents that it would take to oxidize Prolene?

A. Any detectable, measurable amount of an oxidizing species is capable of oxidizing Prolene.

Q. Can you quantify that, Doctor?

MR. JACKSON: Objection, form.

A. A detectable, I don't know what the detection limit of a test you want to use, but if it is detectable, it is capable of oxidizing Prolene.

BY MR. HUTCHINSON:

Q. What about a micromole, can a micromole oxidize Prolene?

MR. JACKSON: Objection, form.

A. Absolutely.

BY MR. HUTCHINSON:

Q. Doctor, do you have any idea how the concentration level of hydrogen peroxide found naturally in the body compares to 30 percent of hydrogen peroxide?

MR. JACKSON: Objection, form.

A. I do not.

BY MR. HUTCHINSON:

Q. You would expect 30 percent hydrogen peroxide to be much stronger than the amount of peroxide found in the body, correct?

MR. JACKSON: Objection, form.

A. Absolutely, yes.

(Priddy Deposition Exhibit 7 was marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, I will hand you what's been marked as Exhibit 7 to your deposition. Doctor, this is a memo from Ethicon dated November 5, 1984. Do you see that?

(Witness reviewing document.)

A. I do.

Q. If you look with me, please, and by the

way, this is a document that you reviewed or relied on in reaching your opinions?

A. I have, yes.

Q. If you look with me on Page 3 at the top --

MR. JACKSON: Chad, can you give us the Bates number of the page you are on?

MR. HUTCHINSON: Yes, it's 15958454.

MR. JACKSON: Thank you.

BY MR. HUTCHINSON:

Q. Top paragraph, middle sentence, it says, "Immersion, with Peroxide Changes."

Do you see that?

A. Yes.

Q. "To ensure strength of Prolene sutures, in 30 percent hydrogen peroxide after a year's time at room temperature do not produce visible surface cracks on any of the fibers."

Do you see that?

A. I do.

Q. Doctor, do you have any reason to disagree with this statement?

A. No.

Q. This shows that Prolene exposed to

30 percent hydrogen peroxide for a year did not produce visible surface cracks; is that correct?

A. That's what that's saying, yes.

Q. Doctor, how did you account for that when reaching your opinions in this case?

A. Irrelevant.

Q. Why?

A. Because they didn't do anything to determine whether the material had oxidized or not.

Q. Doctor, how do you know that?

A. I don't see the data where they detected whether or not oxidation had actually, degradation of the material had occurred. They just looked for surface cracks.

Q. Doctor, surface cracks are a form of degradation, are they not?

A. Yes.

Q. In fact, visible surface cracks are a form of oxidation via degradation, correct?

A. Yes.

Q. Doctor, what is a Bakelite cap?

A. A Bakelite what?

Q. Spelled B-A-K-E-L-I-T-E, do you know what a Bakelite cap is on a glass vial?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. What are Bakelite caps generally made of?

A. Bakelite, which is a phenolic resin.

Q. Doctor, can you explain why the hydrogen peroxide ate away the Bakelite cap and did not affect the Prolene?

A. Yes.

Q. How so?

A. Bakelite is a very hydrophilic, water-loving, resin because phenolics are hydroxylated materials which are hydrophylic. Polypropylene is very hydrophobic, water-hating, so polypropylene repulses and does not absorb water, whereas Bakelite does absorb water. So the water, the hydrogen peroxide would penetrate into the Bakelite and allow chemical oxidation to occur.

Q. Let's look at Page 5 of your expert report, Doctor.

A. Page 5, okay.

Q. Bottom paragraph, about the middle of the paragraph. It states, "These chemicals act to extract the antioxidant stabilizers."

Do you see that?
A. Yes.
Q. Doctor, have you tested that opinion?
MR. JACKSON: Objection, form.
A. That is basic polymer chemistry 101.
BY MR. HUTCHINSON:
Q. My question is: Have you tested that opinion?
MR. JACKSON: Objection, form.
A. Yes.
BY MR. HUTCHINSON:
Q. Are the test results included in your expert report?
A. No.
Q. Doctor, what is the rate that chemicals extract the antioxidant stabilizers?
MR. JACKSON: Objection, form.
A. It is dependent upon conditions.
BY MR. HUTCHINSON:
Q. What about conditions in vivo, what is the rate that conditions in vivo extract Santonox R or DLTDP?
A. That will be dependent upon a lot of variables.

Q. Doctor, can you sit here today and quantify that rate of extraction?

MR. JACKSON: Objection.

A. No.

BY MR. HUTCHINSON:

Q. Doctor, can you explain to us in chemical terms how blood extracts antioxidant stabilizers?

A. You mean scientifically how?

Q. Yes, sir.

A. Blood contains water plus a lot of other things, it contains triglycerides, lipids, different things. And it is the oil or the hydrophobic components in blood, the fats, the oils, the lipids, that extract the stabilizers from the plastic, and even Dr., it starts with B, the Ethicon guy that did the FTIR work, he measured the level of dilauryl thiodipropionate in the surface of sutures that had been removed and saw that there was no detectable, it was all extracted out of the surface. So even Ethicon knows that these antioxidants are extractable from the material.

Q. Doctor, do you know what formalin is?

A. Yes.

Q. You understand that formalin contains

formaldehyde?

A. Yes.

Q. Is formaldehyde a solvent?

A. It is normally 37 percent concentration of water, but is it a solvent? Not really.

Q. Would you consider formalin to be a solvent?

A. Formalin is 37 percent formaldehyde and water. Water is a terrible solvent. It is not going to extract anything of consequence from polypropylene. Polypropylene is repulsive to water.

Q. But my question, sir: Is formalin a solvent?

A. It is a solvent for ionic species, but it is not a solvent for like additives.

Q. Doctor, would you be able to draw out the chemical structure for the reaction between blood and Santonox R?

MR. JACKSON: Objection, form.

A. The Santonox R does not react with blood, it reacts with oxidizing species that would be in the blood.

BY MR. HUTCHINSON:

Q. Doctor, if we turn to Page 7 of your

expert report, top paragraph, last sentence, you reference antioxidant Santonox R that interferes with the oxidative chain reaction.

A. Yes.

Q. Is that correct?

A. Yes.

Q. Doctor, we talked about ROS earlier, just a minute ago, correct?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. And that stands for reactive oxygen species?

A. Correct.

Q. And reactive oxygen species, they possess a free radical, don't they?

MR. JACKSON: Objection, form.

A. They can, yes.

BY MR. HUTCHINSON:

Q. And a reactive oxygen species has a non-bonded electron that wants to bond with something, doesn't it?

A. The ones that are free radicals, yes.

Q. And a free radical is not bonded, is it?

A. That's correct.
Q. And a free radical is -- strike that.
There is no difference between a free radical formed in the body or a free radical formed during the heat extrusion process, correct?
MR. JACKSON: Objection, form.
A. In the sense they are both free radicals.
BY MR. HUTCHINSON:
Q. In fact, Santonox R and DLTDP are free radical scavengers, aren't they?
A. DLTDP is not a free radical scavenger, Santonox R is a free radical scavenger.
Q. Why do you say DLTDP is not a free radical scavenger?
A. Because it works by a different mechanism. What it does is the sulfur reacts with oxygen species.
It doesn't have to be a free radical oxygen, it can just be oxygen, specifically hydroperoxides, to become a higher, either a sulfone or a sulfoxide which is a higher oxidized form. The sulfur converts the hydroperoxide group to an alcohol. But that's a different chemistry. That's not free radical-based.

Q. Let's talk about the chemistry for Santonox R.

MR. JACKSON: Chad, he wasn't through answering his question. You got to let him finish.

BY MR. HUTCHINSON:

Q. Santonox R is designed to remove free radicals when they are formed, correct?

A. I wouldn't say remove, but negate the effects of free -- interferes with free radical chain reactions.

Q. Doctor, let's look at Page 8 at the top. You reference the testing you did, the gas chromatography, mass spectroscopy, did I say that --

A. That's correct.

Q. Is that the testing that you did?

A. Yes.

Q. Did you personally do the GS-MC testing?

A. GC-MS.

Q. GC-MS testing?

A. I don't run lab equipment. Trained technicians run lab equipment. I worked with a technician to tell him how I wanted the test performed, yes.

Q. Who did the GC-MS testing, Doctor?
A. Steve Johnson.
Q. He did it too?
A. Yes, he is the technician that does GC-MS and the OIT test.
Q. Which did Steve Johnson do first, did he do the GC-MS or the DSC testing?
MR. JACKSON: Objection, form.
A. He did the OIT first and then I wanted to see if it correlated with the additives so I asked him to do GC-MS so I could see if there was a statistical correlation.
BY MR. HUTCHINSON:
Q. Let's talk about the GC-MS testing that Steve Johnson did. Did Steve Johnson's GC-MS experiment follow any standard or published procedure?
A. It followed what's called SOP, standard operating procedure. Again, all certified laboratories need SOPs for everything they do. Those SOPs are audited annually, and he followed his SOP for GC-MS.
Q. Which SOP did Mr. Johnson follow?
A. The one for GC-MS in the lab.

Q. But what number?
A. I don't -- it's probably in the lab report he sent me, but I don't have the number memorized.
Q. Doctor, did you ever touch the GC-MS equipment?
MR. JACKSON: Objection, form.
A. No.
BY MR. HUTCHINSON:
Q. Did you ever touch the DSC equipment?
MR. JACKSON: Objection, form.
A. No.
BY MR. HUTCHINSON:
Q. Have you ever even seen the GC-MS or DSC equipment?
MR. JACKSON: Objection, form.
A. Yes, I have.
BY MR. HUTCHINSON:
Q. At Steve Johnson's lab?
A. At Steve Johnson's lab. As a matter of fact I have watched him in the past run it.
Q. But you didn't watch him do this experiment --
A. No.
Q. -- that we are here about today?

A. No, I did not.

Q. Doctor, did Steve Johnson perform any controls in his GC-MS experiment?

A. Yes.

Q. What were they?

A. He always puts in an internal standard in the solvent that he extracts, the additives from the plastic, and that internal standard he looks at the size of the response and the retention time to make sure that the equipment is operating. In other words, it is a known material spiked into the solvent and if that peak is not right, he knows there's an issue.

Q. Did that generate data?

MR. JACKSON: Chad, you have to let the witness finish his answer.

BY MR. HUTCHINSON:

Q. I'm sorry, Doctor, if I interrupted you. Did that generate data?

A. What do you mean?

Q. Using the control, when Mr. Johnson used the control, did it generate any data?

A. Yes.

Q. Where is that data?

A. It would be in his GC-MS data report.
Q. Is Mr. Johnson's GC-MS data report included on the flash drive that you gave me before the deposition?
A. I believe so.
Q. Why wasn't that GC-MS data included in your expert report?
A. I included just this comment of the correlation, but I did not include the data in the report.
Q. But why not? Why didn't you include the data in your report?
A. I just didn't.
Q. Doctor, did Steve Johnson ever try to measure the concentration level of DLTDP?
A. Yes.
Q. What was the result of the concentration level of DLTDP?
A. When he ran the test, he did not see the DLTDP. He couldn't detect it.
Q. Doctor, have you personally ever tried to measure the concentration level of DLTDP in Prolene?
A. Through Steve Johnson I have attempted to do it.

Q. But you personally?

MR. JACKSON: Objection, asked and answered.

A. I have not run the equipment, no.

BY MR. HUTCHINSON:

Q. Doctor, are you aware of any studies that show DLTDP is lost from Prolene once it is implanted in vivo?

A. Yes.

Q. What's the name of the study?

A. That was done by Dr. Burkley, I think his name was.

Q. You are talking about an internal Ethicon scientist?

A. Yes.

Q. Doctor, are you aware of any published peer-reviewed literature that shows DLTDP is lost from Prolene in vivo?

A. Just Dr. Burkley's work.

Q. And nothing else, correct?

A. That's correct.

Q. Doctor, have you ever read Dr. Howard Jordi's expert reports?

A. I don't recall.

Q. Do you know Dr. Howard Jordi?
A. I know there's a Jordi Lab.
Q. Do you know if the Jordi Labs ever detected DLTDP in Prolene?
A. I don't know.
Q. If Dr. Jordi's lab did detect DLTDP in Prolene, that would be inconsistent with the results of your tests, correct?
MR. JACKSON: Objection, form.
A. No.
BY MR. HUTCHINSON:
Q. I thought you told me your tests did not detect DLTDP.
A. No, I'm saying that the way the test was run, it did not detect it. He only saw a peak for the Santonox R.
Q. Doctor, is it your testimony under oath that the Prolene sample that Mr. Johnson used did not have any DLTDP in it?
A. No, it likely did. It's just the way that particular test was run, it was non-detectable. But -- yeah, that's all.
Q. It probably wasn't the best test to determine whether or not DLTDP was in the Prolene?

MR. JACKSON: Objection, form.

A. That's correct, yes.

BY MR. HUTCHINSON:

Q. Doctor, did you do any type of appropriate testing to determine the level of DLTDP in Prolene?

MR. JACKSON: Objection, form.

A. Yes, I tried to. I actually had him experiment with different conditions to try to detect the DLTDP. He did find a condition where he was able to see it. It's just not -- so it's there, it's just not reported in this data.

Q. What test did he use to detect DLTDP?

A. GC-MS, again. It's just he ran it under different conditions.

Q. Doctor, why is that information not in your expert report?

A. Because the purpose for doing it was to just make sure that it was there. I wanted to make sure it was there.

Q. And you confirmed it was there?

A. I confirmed it was there.

Q. Or rather Mr. Johnson confirmed it was there?

MR. JACKSON: Objection, form.

A. Yes.
BY MR. HUTCHINSON:
Q. Doctor, let's go back to the GC-MS test. Did you determine the weight loss for Santonox R before Steve Johnson did his testing?
A. Weight loss?
Q. The weight loss rate?
A. I don't understand the question. You mean by TGA?
Q. Yes, by glass transition, correct.
A. No, TGA is thermogravimetric analysis. It measures weight loss of materials versus temperature.
Q. TGA?
A. TGA.
Q. Did you do any type of TGA analysis to determine the weight loss for DLTDP?
A. No.
Q. Did you do any type of TGA analysis to determine the weight loss of Santonox R?
A. No.
Q. Why not?
A. As I say, the only time I was looking for volatility, if you will, in other words, loss during

the heat process, was by retention time and the gas chromatograph which gives me a feel for volatility.

Q. Doctor, do you know what the recommended ranges are for DLTDP and Santonox R by weight?

MR. JACKSON: Objection, form.

A. I mean, that's application-specific. I know what the formulation for Prolene, has a target range of weight.

BY MR. HUTCHINSON:

Q. Do you know what the target range of weight of DLTDP and Santonox R is for Prolene?

A. I have seen it. It seems like it was between 2,000 and 4,000 parts per million or .2 to .4 percent, I think, in that range. It's probably not correct, but in that ballpark.

Q. Doctor, do you know what the weight loss rate is for DLTDP?

A. From Prolene?

Q. Yes.

A. Under what conditions?

Q. In vivo.

A. In vivo, again, the only data point I got is Dr. Burkley's data where he saw it was totally depleted from the surface after a period of time in

vivo.

Q. Doctor, do you know what the weight loss rate is for DLTDP in vivo?

A. That's what I just answered. The only thing I know is from Dr. Burkley's work.

Q. Same question for Santonox R: Do you know what the weight loss rate is for Santonox R in vivo?

A. No.

Q. Doctor, do you know what the melting point is for DLTDP?

A. Not offhand.

Q. Do you know what the melting point for Santonox R is?

A. Again, not offhand.

Q. Doctor, when we talk about the GC-MS testing, what color was the exemplar that Steve Johnson tested?

A. It's in the lab report he sent me. He listed the lot number and the color.

Q. What color was it?

A. I don't recall if it was blue or white. I'd have to look at the lab report.

Q. What temperature was the GC-MS set for?

A. It's a program. Its oven temperature is

ramped up over time because these additives, like if the oven temperature was set at 40 degrees and you injected the sample, the additive would never come through the instruments. So you've got to keep raising the temperature until it comes through.

Q. What temperature was it when the material began coming through?

MR. JACKSON: Objection, form.

A. I can't tell you precisely. I can tell you it was over 200 degrees.

BY MR. HUTCHINSON:

Q. Was a solvent used by Mr. Johnson with this GC-MS?

A. Yes.

Q. Do you know what type of solvent Mr. Johnson used?

A. Methylene chloride.

Q. Do you know what quantity of methylene chloride that Mr. Johnson used?

A. Again, it is in his lab procedure he sent me. I don't know the number offhand.

Q. Doctor, you will agree that that solvent only extracts volatile materials, correct?

MR. JACKSON: Objection, form.

A. No.
BY MR. HUTCHINSON:
Q. Does it extract volatile materials?
A. Yes.
Q. Doctor, did you know -- my understanding in reading your report is that the GC-MS test only found Santonox R; is that right?
A. That's the only stabilizer that it saw, that he identified as a stabilizer.
Q. Did it pick up any other type of additives to the Prolene?
MR. JACKSON: Objection, form.
A. I do not believe so.
BY MR. HUTCHINSON:
Q. Doctor, did the GC-MS that Mr. Johnson did, did it detect Procol LA-10?
A. No.
Q. Why not?
A. It was probably not volatile enough to make it through the instrument.
Q. Do you know what the flash point is for Procol LA-10?
A. Not offhand, no.
Q. Do you know the melting point?

A. No.
Q. Do you know the flash point for Santonox R?
A. No.
Q. Do you know the flash point for DLTDP?
A. I do not.
Q. Do you know the flash point or melting point for calcium stearate?
A. No.
Q. Do you have any idea why Mr. Johnson's GC-MS test did not detect calcium stearate?
A. Yes.
Q. Why?
A. It wouldn't be soluble in methylene chloride. It's only going to extract out what's soluble in that solvent.
Q. Did the GCMS test detect any blue pigment?
A. No.
Q. Why not?
A. Either it's not soluble in methylene chloride or its boiling point is too high to make it through the gas chromatograph, one of the two.
Q. Do you know what the boiling point is of the CPC blue pigment?

A. I do not.
Q. Doctor, did you ever do any type of FTIR analyses on Prolene?
A. No.
Q. Did Mr. Johnson to your knowledge do any type of FTIR analyses on Prolene?
A. No.
Q. Doctor, let's look at Page 12 of your expert report. Are you there with me?
A. I am.
Q. It states, "The mesh sample," in the top of the first paragraph.
A. Yes.
Q. "The mesh sample is heated to 200 degrees C under pure nitrogen."
Is that right?
A. Yes.
Q. Doctor, do you know, we talked about this earlier, do you have any idea what the flash point is for DLTDP?
MR. JACKSON: Objection, asked and answered.
A. No.
(Priddy Deposition Exhibit 8 was

marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, I want to hand you what we'll mark as Exhibit 8 to your deposition.

(Witness reviewing document.)

Q. Exhibit 8 is for an antioxidant DLTDP, do you see that?

A. I do.

Q. The flash point for DLTDP is 150 degrees C; is that correct?

A. That's what it says, yes.

Q. And Doctor, do you have any reason to believe that the flash point for DLTDP would be significantly different than 150 degrees C?

A. No. It sounds low but I don't have any reason to dispute it.

Q. Doctor, a sample of mesh heated to 200 degrees C is 50 degrees Celsius hotter than the flash point for DLTDP, isn't it?

A. That's correct.

Q. Doctor, that would volatize DLTDP, wouldn't it?

A. No.

Q. Why not?

A. Flash point has nothing to do with boiling point.

Q. A flash point is the temperature at which an organic compound gives off enough vapor to ignite in air; is that right?

A. It's ignitable in air by a spark, yes.

MR. JACKSON: Chad, I am going to object to the use of this document just on foundation. I don't know what it is.

BY MR. HUTCHINSON:

Q. Doctor, what did you do to ensure that DLTDP or Santonox R were not burned off when Mr. Johnson heated the mesh to 200 degrees C?

A. As I explained to you, I had him determine its retention time in the GC which gave me a feel for its level of volatility and based upon that data, I knew it was not a very volatile chemical. And of course when chemicals are embedded in a plastic, it's very difficult to drive them, vaporize them and get them out of the plastic at low levels.

Q. Doctor, on Page 13 of your expert report under Section 11 it states, "The antioxidants," plural, "present in the ten meshes were then extracted."

Did I read that correctly?

A. That's correct.

Q. DLTDP was found as an antioxidant in this case; is that correct?

MR. JACKSON: Objection, form.

A. Just a minute. Let me read through this real quick.

(Witness reviewing document.)

A. Now, what's your question?

BY MR. HUTCHINSON:

Q. My question is, sir: Was DLTDP extracted using the methylene chloride solvent?

A. All I can say is that in this particular test referred to right here, it was not detected, and I don't know exactly why it wasn't detected. I don't know if it wasn't extracted or if the conditions for the GC-MS analysis just were such that it didn't detect it.

Q. Did you ever make any effort to find out why?

MR. JACKSON: Objection, form.

A. I asked him to try to detect DLTDP and he played around and was finally able to come up with conditions that he could see it. But it was not

this particular test right here, he couldn't see it.
BY MR. HUTCHINSON:
Q. What concentration level did Mr. Johnson find DLTDP in?
A. The particular -- I remember numbers, hundreds of parts per million.
Q. Right, but can you quantify the amount of DLTDP concentration level that Mr. Johnson found?
A. I'm sorry, the question again?
Q. Can you quantify the concentration level of the DLTDP that Mr. Johnson found?
A. As I said, it was hundreds of parts per million. I just don't remember the exact number.
Q. Did Mr. Johnson ever tell you that exact number?
MR. JACKSON: Objection, form.
A. Yes.
BY MR. HUTCHINSON:
Q. Where would that data be included?
A. In the data report.
Q. Where is the data report?
A. Should be on the flash drive.
Q. Look at Page 9 for me, please, of your expert report under Summary, Number 2.

A. Okay.
Q. It states, "The polymer chain is disentangled."
Do you see that?
A. Yes.
Q. Doctor, would you agree that disentanglement of polymer chains allows a polymer to elongate?
MR. JACKSON: Objection, form.
A. No.
BY MR. HUTCHINSON:
Q. Doctor, if polymers, if polymer chains do not disentangle, would the polymer become brittle?
A. If the polymer chains do not disentangle, would the polymer become brittle?
Q. Correct.
A. Yeah, it can, yes.
Q. But you disagree that disentanglement of polymer chains allows a polymer to elongate?
MR. JACKSON: Objection, misstates witness testimony.
A. A polymer will elongate under stress whether or not it is entangled. So I guess I'm not --

BY MR. HUTCHINSON:

Q. Should the polymer chains become disentangled for a polymer to elongate?

A. No.

Q. Doctor, when you reviewed the internal documents from Ethicon, did you review any documents on biocompatibility?

MR. JACKSON: Objection, form.

Q. Doctor?

A. I'm thinking. I guess I'm not sure specifically what you are referring to, but I would say yes.

Q. Do you have any opinions about the biocompatibility testing of Prolene that Ethicon did?

A. I don't have an opinion on that.

Q. Doctor, have you ever designed pelvic mesh?

MR. JACKSON: Objection, asked and answered.

A. No.

BY MR. HUTCHINSON:

Q. Have you ever done any type of biomechanical testing of pelvic mesh?

A. The only testing I have done regarding Prolene mesh are listed in my report.

Q. So we are clear, you have never done any biomechanical testing of Prolene mesh, correct?

A. That's correct.

Q. You have never done any type of biomechanical testing of Prolene, have you?

A. No.

Q. Have you ever been involved in any type of clinical research regarding Prolene?

A. Other than reviewing a lot of documents on the research, no.

Q. My question is, sir: Have you personally ever been involved in any type of clinical research regarding Prolene?

A. Not as far as conducting the research, no.

Q. Or mesh, have you ever been involved in any clinical research regarding mesh?

MR. JACKSON: Objection, form.

A. Just reviewing the results of the studies, that's it.

BY MR. HUTCHINSON:

Q. Have you ever tested a mesh explant?

MR. JACKSON: Objection, form.

A. I served as a consultant on a project several years ago involving Kugel mesh and at that point I received a mesh sample, but I don't recall actually evaluate -- or testing it.

BY MR. HUTCHINSON:

Q. Do you know what the chemical composition is of the Kugel mesh?

A. Yes, it was a polyester.

Q. It wasn't Prolene, correct?

A. No.

Q. Doctor, you will agree that Prolene has a chemical composition difference compared to polypropylene?

A. Absolutely, yes. Compared to what?

Q. Compared to polypropylene. Polypropylene and Prolene are chemically different, aren't they, sir?

MR. JACKSON: Objection, form.

A. Prolene meshes are polypropylene.

BY MR. HUTCHINSON:

Q. Doctor, as a materials scientist, would you agree that Prolene has a different chemical composition compared to pure polypropylene?

MR. JACKSON: Objection, form.

A. It's got stabilizers and additives, yes.
BY MR. HUTCHINSON:
Q. Prolene and polypropylene are not identical, are they?
A. Prolene is polypropylene with additives.
Q. And pure polypropylene is not identical to Prolene, correct?
MR. JACKSON: Objection, asked and answered.
BY MR. HUTCHINSON:
Q. Pure polypropylene?
A. Because pure, with no additives, is different than a formulation with additives, yes.
Q. And Ethicon's product is a formulation with additives, correct?
A. That's correct. All polypropylene products contain additives. They have to.
Q. But they are different polymers?
A. Polymer is the same.
Q. Doctor, what medical products are you designated to give opinions about?
A. You mean in legal cases? I've done consulting.
Q. No, in the deposition that you are here

for today, In Re Ethicon Pelvic Repair System Products Liability Litigation.

MR. JACKSON: Objection, form.

A. I was asked to opine on the use of polypropylene in the TVT and the Gynemesh product lines for urinary incontinence and the pelvic products.

BY MR. HUTCHINSON:

Q. Doctor, do you know the names of the products that you are designated to give testimony about for the plaintiffs?

A. As I said, the TVT products, there's like four or five of those and then the prolapse products, there are several of those.

Q. Do you know the names of those products?

A. Boy, I'm terrible at names. I don't remember the details of all the names, no. I was shown the names and have seen the names and, yes, but I just don't recall all the names.

Q. Do the opinions that you are giving today relate to all of these products?

A. If they contain polypropylene, yes.

Q. Doctor, have you ever seen a TVT -- strike that.

I am going to represent to you that you are designated in cases involving Prolene Soft mesh, Gynemesh PS, TVT, Prolift, TVT-O, Prolift+M, TVT Exact, TVT Secur, Prosima and TVT Abbrevo?

A. I have seen all those names, yes.

Q. Thank you. Doctor, have you ever held any of those devices in your hand?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. When?

A. Back in December when I received the samples for lab testing.

Q. Did you receive one sample of each product?

A. No, I received, I think, four of the Gynemesh products and six of the TVT products.

Q. So fair to say you have never held Prosima or Prolift or Prolift+M in your hands?

MR. JACKSON: Objection, form.

A. That's correct.

BY MR. HUTCHINSON:

Q. Doctor, do you know what the indications are for those products?

A. Indications?
Q. Yes.
A. What do you mean by indications?
Q. What the product is indicated for from a medical standpoint.
A. In general, yes.
Q. Doctor, do you know how long those products have been on the market?
A. The years vary but it started back in the 1990s and then there's recent introductions as recent as, I think 2010 or '11.
Q. Can you tell us the date that each of those products were introduced to the market?
MR. JACKSON: Objection, form.
A. Again, I have seen the dates, I just don't recall.
BY MR. HUTCHINSON:
Q. Do you know the physical dimensions of the mesh of each of those products?
MR. JACKSON: Objection, form.
A. Again, I have seen pictures and photo-graphs of them, but I don't recall exact dimensions.
BY MR. HUTCHINSON:
Q. Do you know the weight of the mesh of

those particular products?

A. Again, I've seen that information. I just don't recall it.

Q. Do you know how many newtons of force are placed on the mesh in vivo?

A. I do not.

Q. Doctor, what do you know about the manufacturing process Ethicon uses to make Prolene?

MR. JACKSON: Objection, form.

A. I know that the resin is manufactured in West Virginia and then it's converted to fiber in Georgia, and then woven into mesh and sent over to Europe where it's cut and then it's shipped back to the US for sale.

Q. Doctor, is the mesh woven or knitted?

A. Oh, boy, I'm not sure of the semantics of the difference between those to be able to answer.

Q. Doctor, do you know if Prolift+M, the mesh in Prolift+M is made of a hundred percent Prolene?

A. I remember, when I looked through the data in the data sheets, I remember that some of the products have polypropylene plus another biodegradable kind of material, either polycaprolactone or glycolate biodegradable

material. So it is a hybrid system.

Q. Doctor, my question is: Do you know what type of biodegradable material Prolift+M has in its mesh?

MR. JACKSON: Objection, form.

A. I have seen it, I just don't recall.

BY MR. HUTCHINSON:

Q. Doctor, did you make any efforts to find out what type of biodegradable material is in Prolift+M?

A. Other than reading the sheets that describe them, no.

Q. Do you consider yourself an expert in the manufacturing process of pelvic mesh?

MR. JACKSON: Objection, form.

A. Just the manufacture as far as it goes to making the fibers. Once the fibers are made, I'm not an expert from that point on.

BY MR. HUTCHINSON:

Q. Doctor, have you ever invented any type of polypropylene product that's turned into a fiber?

A. Invented a polypropylene product, I have worked on polypropylene additive formulations. I led a group at Dow for several years in the 1990s

where we experimented with different Dow products including polypropylene and the additives and stabilizers that need to be added to those to make various types of products including fibers.

Q. Doctor, have you personally ever performed any testing to determine if Prolene degrades in vivo?

A. I have not done any in vivo testing myself, no.

Q. And you haven't done any loss of mechanical property testing in vivo, have you?

A. I just reviewed the Ethicon documents which showed the loss of strength properties from in vivo implanted Prolene sutures.

Q. But you have never done any testing, have you?

MR. JACKSON: Objection, form.

A. Just reviewed work of others, yes.

BY MR. HUTCHINSON:

Q. In fact, you have never tested the durability of Prolene?

A. In vivo?

Q. Yes.

A. Not directly, no.

Q. Have you ever tested the durability of Prolene in any form or fashion?

MR. JACKSON: Objection, form.

A. Well, yes, the OIT testing.

BY MR. HUTCHINSON:

Q. What about tensile strength, have you ever tested tensile strength of Prolene, whether it be in vivo or outside the body?

A. I just reviewed the Ethicon documents which do that kind of testing.

Q. You have never done tensile strength testing, have you?

A. I have done tensile strength testing.

Q. Of Prolene?

A. Not of Prolene, no.

Q. You have never done elongation testing of Prolene, have you?

A. Just reviewed those documents.

Q. You have never done any toughness testing of Prolene, have you?

MR. JACKSON: Objection, form.

A. No, just reviewed the documents.

BY MR. HUTCHINSON:

Q. You have never done any Young's modulus

testing of Prolene, have you?

A. I sure reviewed the Ethicon documents on the Young's modulus of Prolene. I was shocked by what I saw.

Q. You have never done any testing of that, have you?

A. I have done modulus testing.

Q. On Prolene?

A. Not on Prolene, no.

Q. You have had the resources available to do all of this testing of Prolene, haven't you?

A. I've had it, but I had all those documents which gave me the data that I needed to opine on that issue.

Q. You will agree with me that degradation affects the physical properties of the polymer?

A. Absolutely, yes.

Q. And it will affect the physical properties of the mesh and/or suture, correct?

A. That's correct.

Q. You will agree that evaluation of the physical properties of mesh is an important part in your analysis on degradation, correct?

A. Absolutely, yes.

Q. As well as oxidation?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. Doctor, have you ever done any type of testing or analysis on an explanted Prolene mesh?

A. Just reviewed the literature and the documents.

Q. But you have never done any actual testing of an actual explanted Prolene mesh, have you?

A. Not myself, no.

Q. Have you ever seen a Prolene explanted mesh?

A. Yes.

Q. Where?

A. In the literature.

Q. Have you ever seen an actual Prolene explanted mesh?

A. No.

Q. Have you ever seen an actual Prolene explant that has become degraded?

A. Yes.

Q. Where?

A. In the literature.

Q. Outside the literature, have you ever seen personally a Prolene explant that has become brittled?
A. No.
Q. Or degraded?
A. No.
Q. Or oxidized?
A. No.
Q. Or lost physical properties?
MR. JACKSON: Objection, form.
A. Just in pictures in the literature.
BY MR. HUTCHINSON:
Q. In fact, you have never done any testing or analysis on the degradation of Prolene before your involvement in this case; is that correct?
MR. JACKSON: Objection, asked and answered.
A. Before involvement in the case, no.
BY MR. HUTCHINSON:
Q. Am I correct?
A. That's correct.
Q. Thank you. Doctor, you were designated in -- let's look at Exhibit 1 for me, please, it is the notice of deposition.

A. Yes.
Q. You were designated as an expert in 23 case-specific cases starting with Harriet Beach, Sharon Boggs and going on down all the way to Virginia White. Do you see that?
A. Yes.
Q. Do you know what type of product these 23 women received?
MR. JACKSON: Objection, form.
A. No.
BY MR. HUTCHINSON:
Q. Have you ever reviewed the medical records for these 23 plaintiffs?
A. No, I have not.
Q. By the way, Doctor, have you ever attempted to clean an explanted piece of mesh?
A. No.
Q. Why do you laugh?
A. Because I was sent a sample of explanted mesh and asked to analyze it and it made me very nervous.
Q. Who sent it to you?
A. This was the Kugel mesh case and I got to the point of where I just didn't want to handle a

piece of explanted mesh because of various obvious reasons.

Q. Biohazardous --

A. Biohazardous, yes, until I was assured that there was no issue.

Q. Doctor, fair to say you have never inspected the explanted mesh from any of these 23 women, correct?

A. That is correct.

MR. JACKSON: We have been going about another hour. Can we take a break soon?

MR. HUTCHINSON: Yes.

BY MR. HUTCHINSON:

Q. Do you know the date that these women had implanted or explanted mesh in them?

A. No.

Q. Do you have any idea how long these women had their mesh in their bodies before it was explanted?

A. No.

Q. Do you know why from a medical or clinical standpoint, why any of these 23 plaintiffs had their mesh removed?

MR. JACKSON: Objection, form.

A. I can only make assumptions.

BY MR. HUTCHINSON:

Q. You don't have any hard facts on why the mesh --

A. No.

Q. Excuse me, no hard facts regarding why the mesh was removed, correct?

A. Correct.

Q. Doctor, can you make any prediction about when the mesh from any of these 23 different plaintiffs would have oxidized in vivo?

MR. JACKSON: Objection, form.

A. Based upon the results of Ethicon's testing, yes.

MR. JACKSON: Chad, let's take a break now.

MR. HUTCHINSON: Actually, just two more questions and we'll take a break.

MR. JACKSON: I will give you two questions.

BY MR. HUTCHINSON:

Q. Doctor, can you tell us a specific date when Harriet Beach's mesh oxidized?

MR. JACKSON: Objection, form.

A. No.

MR. HUTCHINSON: Thank you. We'll take a quick break.

THE VIDEOGRAPHER: We are off the video record. The time is 11:08 a.m.

(Recess.)

THE VIDEOGRAPHER: We are back on the video record with Tape Number 3. The time is 11:18 a.m.

BY MR. HUTCHINSON:

Q. Doctor, back on the record. Anything about the testimony you have given you would like to change?

A. No.

Q. Going back to Exhibit 1 and the list of the 23 different plaintiffs, can you tell us the date on which any of these 23 different plaintiffs had their mesh oxidized?

MR. JACKSON: Objection, form.

A. I could probably tell you if I had the literature when the meshes were removed.

BY MR. HUTCHINSON:

Q. Right, but I am asking when they were

oxidized.

A. There's so many variables in the human body, it's impossible to know when a mesh, at what point it oxidizes to the point of degradation to be an issue.

Q. Doctor, can you identify by name one person who has had their mesh surgery removed because of degradation?

MR. JACKSON: Objection, form.

A. My best is all of them had them, they were degraded by oxidation. Every mesh that was removed from these women, I'm very confident would show evidence of degradation by oxidation. It is because of my knowledge of polypropylene oxidation.

BY MR. HUTCHINSON:

Q. You have never talked to the doctors?

A. I have not.

Q. You have never looked at the medical records?

A. That's correct.

Q. You have never talked to any of these plaintiffs?

A. That's correct.

Q. Or any of these family members?

A. That's correct.

Q. Doctor, can you state to a reasonable degree of scientific certainty whether or not any of these 23 plaintiffs have had their mesh removed specifically because of degradation?

A. All I can say is that the meshes removed from these women had undergone oxidation. I can say that unequivocally.

Q. Doctor, did the mesh from any of these women fail?

MR. JACKSON: Objection, form.

A. Depends on how you define failure.

BY MR. HUTCHINSON:

Q. Did the mesh from any of these women stop providing tissue support?

A. I do not know that.

Q. Did the mesh from any of these women lose molecular weight?

A. Yes.

Q. Have you ever done any molecular weight analyses on the explants from these women?

A. No.

Q. How can you tell us that these meshes lost molecular weight without having examined the

explant?

A. Because I understand the chemistry of polypropylene, and the fact that it interacts with oxidizing species and degrades, and as part of the oxidation process, molecular weight is lowered. And the fact that they were implanted for a period of time, I'm a hundred percent confident that if I had a sensitive way to measure molecular weight, or I should say applied a sensitive technique for measuring molecular weight of all of these explanted meshes, I can detect a loss of molecular weight. I have full confidence of that.

Q. A loss of molecular weight means degradation has occurred, correct?

A. That's correct.

Q. Let's take, for example, Harriet Beach, the first named plaintiff. Do you have any evidence to confirm that Harriet Beach, her explant, lost molecular weight?

MR. JACKSON: Objection, asked and answered.

A. Do I have data?

BY MR. HUTCHINSON:

Q. Yes, sir.

A. Other than my knowledge of polypropylene oxidation chemistry, no.

Q. Doctor, do you have data on any of the 23 plaintiffs that would show their mesh lost molecular weight?

A. I have not actually done the measurements to collect the data, no.

Q. In fact, Doctor, you have not done anything according to the scientific method to prove whether or not any of these plaintiffs' mesh degraded in vivo, have you?

MR. JACKSON: Objection, form.

A. I have done a ton of research using the scientific method to study the degradation chemistry of polypropylene.

BY MR. HUTCHINSON:

Q. But have you proven that using the scientific method for any of these 23 plaintiffs, yes or no?

A. Not those specific samples, no.

Q. Doctor, are you aware of any peer-reviewed literature that shows there is a clinical effect of degradation in vivo?

A. I've read a ton of literature put out in

the last ten years on explanted meshes that show degradation.

Q. Doctor, are you aware of any clinical data that shows degradation is clinically significant?

MR. JACKSON: Objection, form.

A. Clinically, I can't equate to that, clinically significant.

BY MR. HUTCHINSON:

Q. Doctor, are you aware of any clinical data that shows degradation causes clinical harm?

A. Again, since I'm not a medical doctor, I can't equate the clinical.

Q. Are you aware of any data that shows degradation causes harm in women?

A. Any data?

Q. As a scientist.

A. Other than reading the scientific literature that I've talked about on explants.

Q. Doctor, have you concluded that Prolene is toxic?

MR. JACKSON: Objection, form.

A. I know from reading the MSDS sheets on the different additives in Prolene, I know that the colorant, the copper phthalocyanine pigment is

cytotoxic, so that tells me that any dye that exudes from the surface in the neighboring tissue would be toxic to it.

Q. Are you offering opinions today to a reasonable degree of scientific certainty that Prolene is toxic in the human body?

MR. JACKSON: Objection, form.

A. No, just that pigment is cytotoxic. That's all I can say.

BY MR. HUTCHINSON:

Q. Doctor, as a material scientist, are you aware of any material that's completely inert?

A. Completely inert, about the closest to completely inert is diamond.

Q. Are you aware of any medical device on the market that's completely inert?

A. Again, probably the closest would be titanium, but even that is not, completely is a pretty, 100.00 percent is completely and there's no such thing.

Q. Doctor, are you aware of any mesh, medical device on the market that is inert in the human body?

A. All I can tell you is from reading the

literature, it appears that PDVF is the closest to being inert but even that's not inert.

Q. Thank you. Doctor, when we talked about degradation, you will agree that there must be loss of molecular weight for degradation to occur?

MR. JACKSON: Objection, misstates the witness' testimony.

A. No.

BY MR. HUTCHINSON:

Q. What happens to a polymer when it loses molecular weight, does it degrade?

A. Yes.

Q. There must be loss of molecular weight for degradation to have occurred, correct?

A. No.

Q. Why not?

A. There's intermediate species like, for example, before molecular weight loss occurs, there is generally oxidation. There's a hydroperoxide chemical functionality on the polymer and that precedes molecular weight loss.

Q. But for oxidation to have occurred, there must be loss of molecular weight, correct?

A. No.

Q. Why not?
A. The additives oxidize so they are constantly dynamic, changing in their structure. As I mentioned earlier, the DLTDP changes to a sulfone, ultimately to a sulfoxide. That's an oxidized species, so it is changing --
Q. I'm not asking about --
MR. WALLACE: Chad, you have to let him finish. This has been going on for a while. Just let him finish. We have been good all day.
BY MR. HUTCHINSON:
Q. Let's talk about oxidation.
A. Okay.
Q. For oxidation to occur, there must be a chain scission in the cleavage of the polymer chain, correct?
A. No, just to explain, you can have oxidation going on of the additives of the polymer chain without degradation that precedes molecular weight loss.
Q. If a polymer oxidizes, will there be loss of molecular weight?
MR. JACKSON: Objection, asked and

answered.

A. There can be, but there doesn't necessarily have to be.

BY MR. HUTCHINSON:

Q. If oxidation occurs, will there be strong carbonyl bands on the FTIR?

A. Again, that's a later stage. The hydroperoxide group that forms first is not a carbonyl. You don't see an FTIR carbonyl band.

If it changes to another species, then it generates a carbonyl band. But the first stage of oxidation is generated to a hydroperoxide. That's still oxidation, but it hasn't formed a carbonyl band yet.

Q. At what point does a loss of molecular weight occur in oxidation?

A. At the point that the hydroperoxide group changes to a carbonyl, it is accompanied by chain scission and you lose molecular weight.

Q. So when you have chain scission, you lose molecular weight?

A. That's correct.

Q. For oxidation to occur, you must always have chain scission of the polymer chain, correct?

MR. JACKSON: Objection, form.

A. No. As I mentioned earlier, you can have oxidation without chain scission.

BY MR. HUTCHINSON:

Q. If oxidation occurs, you always have reduced physical properties of the polymer?

MR. JACKSON: Objection, form.

A. In the early stages, it's probably non-detectable.

BY MR. HUTCHINSON:

Q. If oxidation occurs, you will have embrittlement?

A. Ultimately.

Q. If oxidation occurs, you will have loss of tensile strength?

A. Ultimately.

Q. If oxidation occurs, you will have loss of elongation?

A. That's dependent. If body fluids, lipids, oils, fats are absorbed into the polymer, it actually increases elongation.

Q. You will have loss of toughness if oxidation occurs, correct?

MR. JACKSON: Objection, form.

A. Depends on how you define toughness, but generally, yes.

BY MR. HUTCHINSON:

Q. Let's define it as the area under the curve on a stress-strain diagram. With that definition, you will have a loss of toughness, correct?

A. Give me a minute to think about that.

Yes.

Q. Doctor, would you ever expect to see an increase in physical properties in a polymer that is oxidized?

A. Which physical property?

Q. Tensile strength.

A. Yes.

Q. Young's modulus?

A. Can I explain? Tensile strength, as a material becomes more brittle, generally increases. Young's modulus, if there's no chemicals absorbed into the material to alter its plastic nature, Young's modulus will generally increase as the material embrittles.

Q. What about toughness?

A. Toughness generally decreases even though

the tensile strength -- of course, you are getting into some issues here which require a lot of materials science explanations. But in general, as materials embrittle, the Young's modulus and the tensile strength actually increase but the area under the stress-strain curve decreases.

Q. Doctor, are you aware of any product on the market --

MR. HUTCHINSON: We are going to have to take a quick break, and this obviously does not count as my time. We are going to have to take a quick break because of the noise outside.

THE VIDEOGRAPHER: We are off the video record. The time is 11:33 a.m.

(Recess.)

THE VIDEOGRAPHER: We are back on the video record. The time is 11:33 a.m.

BY MR. HUTCHINSON:

Q. Doctor, are you aware of any medical product on the market that will never oxidize?

A. No.

Q. Doctor, can oxidation of pelvic Prolene mesh -- strike that.

Can oxidation of Prolene pelvic mesh ever be completely eliminated in vivo?

MR. JACKSON: Objection, form.

A. No.

BY MR. HUTCHINSON:

Q. Doctor, you talked about a PVDF earlier; is that correct?

A. Yes.

Q. Is that what you believe would have been a safer alternative than polypropylene?

MR. JACKSON: Objection, form.

A. I have no basis to make that kind of a conclusion other than my understanding of the relative oxidative stability of PVDF versus polypropylene.

BY MR. HUTCHINSON:

Q. Doctor, what in your opinion is a safer alternative for Prolene in pelvic floor repair?

MR. JACKSON: Objection, form.

A. I'm not here to opine on that. I was just asked to talk about polypropylene meshes. So I'd rather not get into that kind of a discussion.

BY MR. HUTCHINSON:

Q. I understand, but do you have an opinion

sitting here today what the safer alternative for Prolene would be?

MR. JACKSON: Objection, asked and answered.

A. Well, I know from my experience as a polymer scientist, I have worked with PVDF. It is used in water filtration membranes, and the reason is because it's like a rock when it comes to oxidative stability.

They actually clean these membranes by soaking them in concentrated bleach for several days to burn off the organics. And yet even though it tolerates that for a while, eventually even those membranes eventually oxidize and degrade and have to be replaced.

Q. And there are risks associated with PVDF, correct?

MR. JACKSON: Objection, form.

A. Risks?

BY MR. HUTCHINSON:

Q. Yes, medical risks associated with PVDF, correct?

MS. FITZPATRICK: You can't just put an expert up here and ask anything that

you want. So if it is tied to his report, fine; but other than that, you are going to have to move on.

BY MR. HUTCHINSON:

Q. Can you answer that question?

A. Repeat the question.

Q. Yes. Are you aware of any medical risks using PVDF as a medical device?

MS. FITZPATRICK: I am going to instruct the witness not to answer unless you can show for some reason it is in his report.

BY MR. HUTCHINSON:

Q. Doctor, have you ever tested the durability of PVDF as a mesh material inside the human body?

MS. FITZPATRICK: Same objection, same instruction.

BY MR. HUTCHINSON:

Q. Doctor, would you ever guarantee, would you ever provide a lifetime guarantee for PVDF mesh?

MR. JACKSON: Same instruction, same objection.

BY MR. HUTCHINSON:

Q. Doctor, are you aware of any mesh made, on the market made out of PVDF?

MS. FITZPATRICK: Objection, same instruction.

MR. HUTCHINSON: Instructing the witness not to answer?

MS. FITZPATRICK: I am. You want to show us why you think that's in his report, I'd be happy to reconsider and look at it; but otherwise, just having an expert witness sitting in the chair and having him opine on things that are well beyond his report is not appropriate.

BY MR. HUTCHINSON:

Q. Doctor, could you tell us what would be a reasonably safe alternative to Prolene mesh?

MR. JACKSON: Objection to form.

A. Not without investigating and researching that question.

BY MR. HUTCHINSON:

Q. Doctor, have you done any efforts to research or investigate that question?

A. A safer alternative, no. That's beyond the scope of what I was asked to do.

Q. Doctor, what's your opinion about what Ethicon should have done differently to prevent oxidation of Prolene?

MR. JACKSON: Objection, form.

A. There is no technology that I'm aware of where you can prevent the oxidation of polypropylene.

BY MR. HUTCHINSON:

Q. Doctor, if we talk about the physical properties of mesh, have you read the seven-year dog study?

A. I have indeed.

(Priddy Deposition Exhibit 9 was marked for identification.)

BY MR. HUTCHINSON:

Q. I want to hand you what we'll mark as Exhibit 9 to your deposition.

(Witness reviewing document.)

Q. Doctor, this is the seven-year Burkley dog study that you relied on?

A. Yes.

MR. JACKSON: I am just going to object because it says Barbolt on the cover. You said Burkley.

BY MR. HUTCHINSON:

Q. Doctor, turn with me to the last page of the seven-year dog study marked as Exhibit 9 to your deposition. Are you there with me?

A. Yes.

Q. Have you ever seen this particular page before?

A. Absolutely, yes.

Q. Did you look at the breaking strength, elongation and Young's modulus for Prolene?

A. I certainly did.

Q. Doctor, what did you notice about it?

A. I noticed the Young's modulus was ridiculously low after seven years.

Q. Doctor, do you have any reason to believe that the negative 70 shown for Prolene is incorrect?

A. No.

Q. Doctor, do you have any reason to believe that the 111 percent increase of elongation for Prolene is incorrect?

A. No.

Q. What about for the breaking strength of negative 5 percent, any reason to believe that's incorrect?

A. No.
Q. Doctor, have you ever done any type of analysis using this data from the dog study?
A. Yes.
Q. For Prolene?
A. Yes.
Q. Is it included in your report?
A. No.
Q. Why not?
A. If I do a supplemental report, I'll probably include it, but I didn't include it in this report.
Q. Why not?
A. I can't answer the question. I just didn't do it.
Q. Did the lawyers that hired you instruct you not to include that in your supplemental report?
MR. JACKSON: Objection, form.
BY MR. HUTCHINSON:
Q. I mean in your original report.
A. No.
Q. But you are currently working on evaluating this data, is that your testimony?
A. No, I just said I have evaluated it.

Q. Are you currently doing an analysis using this type of data?

MR. JACKSON: Objection, asked and answered.

BY MR. HUTCHINSON:

Q. Currently?

A. No, I have analyzed this data.

Q. But I thought you said you have done some tests that are not included in the report.

MR. JACKSON: Objection, misstates witness' testimony.

A. I have in the past, yes. I have done quite a few tests.

Q. What type of tests of the breaking strength, elongation and Young's modulus of Prolene have you done?

A. I haven't done tests, I have evaluated this data.

Q. Doctor, does this data that we are looking at now support your opinions that Prolene degrades?

A. Absolutely.

Q. How so?

A. The 70 percent loss of modulus, that's huge.

Q. That means Young's modulus is stiffness, correct?

A. Yes, it does.

Q. And Young's modulus -- strike that.

This means that the Prolene lost 70 percent of its stiffness after seven years?

A. That's correct.

Q. And why do you believe that supports your opinion?

A. Going from a 700,000 modulus down to 200,000, I took that data and plotted it out. So I took the tensile, the Young's modulus which is tensile modulus times 0 after one year, after two years, after seven years, plotted it. It's a straight line, with 98 percent statistical linear straight line. When I extrapolate that until the time it hits 0 modulus, it predicts ten years, three more years, that material would have been water.

A stiffness of 200,000 modulus is, the Prolene, if it had been held up, it would have sagged. There's no stiffness whatsoever, no integrity. It would have been like jello. That's huge.

Q. Is that information in your expert report,

Doctor?

A. No.

Q. Why not?

A. I focused on the other issues and didn't include that.

Q. You will agree that the physical properties that are shown of the Prolene sutures in the dog study improved after seven years?

A. Absolutely not, no. Loss of modulus is huge. That means the material has no integrity. If it had been any stress at all on it, it would have stretched right out.

(Priddy Deposition Exhibit 10 was marked for identification.)

BY MR. HUTCHINSON:

Q. Doctor, I want to hand you what we will mark as Exhibit 10 to your deposition. This shows toughness as the area under the curve, correct?

MR. JACKSON: Objection, form.

Q. The stress-strain chart.

(Witness reviewing document.)

A. Yes.

Q. Doctor, these are the same plots or the same data that we saw from the Burkley dog study

that we just looked at, correct?

A. I don't know.

Q. Why don't you compare the data on this chart to the data on the last page of the seven-year dog study.

A. These stress-strain curves look strange. I would have to actually see the plot-outs from the instruments that ran this stress-strain curve because you normally don't get a 0 point and a point up here that's a perfect straight line. It's always an arc.

So it looks like somebody took a ruler and hand-drew this out. It doesn't look right.

Q. Doctor, looking at the red at time 0, elongation was 1.68 pounds according to the Burkley dog study, correct?

A. That's percent.

Q. I'm sorry, percent.

A. Right.

Q. Elongation times 0 is 37 percent; is that right?

A. Again, this data doesn't look -- something is wrong with the data.

Q. What's wrong with the data?

A. I mean, elongation is not to pounds, it's in percent and above it you have got 37 percent. I mean, that looks correct, year 0, 37 percent. It must be the breaking strength is 1.68 pounds. Okay, now I understand.

Q. Now that you have looked at it, you will agree that the data is correct on Exhibit 10?

MR. JACKSON: Objection, form.

A. Well, again, I can't make that leap.

BY MR. HUTCHINSON:

Q. Why not?

A. As I say, the curves look weird. It looks like somebody hand-drew with a ruler. The plot-outs from a tensile, an Instron, don't look like this. They are not "blocky" like this. They are nice, smooth curves. Somebody has taken the data and hand-drawn this.

Q. Doctor, you will agree that the numbers for the breaking strength and elongation at year zero are the same as the Burkley dog study, correct?

A. Hang on.

(Witness reviewing document.)

A. Yes.

MR. JACKSON: Chad, are you asking

him to compare data in Exhibit 9 and Exhibit 10? Is that what you are asking him?

BY MR. HUTCHINSON:

Q. I'm sorry, did you say yes?

A. Yes, I did.

THE WITNESS: That was what I assume he was asking.

Q. And Doctor, at year 7 --

MS. FITZPATRICK: Chad, can he answer the question so it is clear on the record?

MR. JACKSON: Chad, I just asked, were you asking Dr. Priddy to compare Exhibit 9 and Exhibit 10? Is that what you just asked him to do?

MR. HUTCHINSON: Yes, I did. I thought the witness answered your question. My bad.

BY MR. HUTCHINSON:

Q. Doctor, at year 7, is the data on Exhibit 10 the same as the data in the Burkley dog study?

A. Yes, it is.

Q. Thank you. And Doctor, you will agree that the area under the curve is a measure of toughness, correct?

MR. JACKSON: Objection, form.

A. As I say, there's something wrong here. What I'm seeing here with modulus does not equate to what I'm seeing here (indicating). There's something wrong.

BY MR. HUTCHINSON:

Q. But can you tell us sitting here today what's wrong?

A. What I'm saying, modulus is listed here. It's not reflected here (indicating). There's a problem. Something is wrong.

Q. I understand. My question is: Sitting here today, can you tell us what is wrong?

MR. JACKSON: Objection, asked and answered.

A. I can't. I have to figure it out. I cannot figure it out based on what I'm seeing. It just doesn't equate, is what I'm saying. There's something, there's a problem.

BY MR. HUTCHINSON:

Q. Have you made any efforts to determine

what that problem is?

MR. JACKSON: Objection, form.

A. Until I just noticed the problem now, no. I should say yes, I have been trying to figure it out the last five minutes and I can't. It doesn't add up.

I've done literally thousands of stress-strain tensile studies on different samples and this doesn't look right. Something's wrong.

Can I interject something at this point? It's not an answer to a question, it is kind of answering your question.

Modulus is slope. There's a huge difference between a slope of a Young's modulus of 200,000 and 700,000.

These two curves have almost the same slope, and this does not reflect a difference of 200 to 700,000. As I say, something is clearly wrong.

Q. Doctor, can you quantify the rate at which you believe antioxidants are depleted from Prolene?

MR. JACKSON: Objection, asked and answered.

A. In which?

BY MR. HUTCHINSON:

Q. In vivo.

A. It's too many variables. It's impossible. It's going to be dependent upon the amount of tension, the amount of inflammation, the amount of oxidizing species, but the foreign body response, there's too many variables, plus you've got the variability in the mesh and its oxidative stability. So you just can't predict that.

Q. Have you made any efforts to test that whatsoever?

MR. JACKSON: Objection, form.

A. Test the rate at which it would, just my OIT work.

BY MR. HUTCHINSON:

Q. Doctor, you agree that sutures, Prolene sutures have been on the market for a long time?

A. Yes.

Q. Doctor, are you criticizing Ethicon's Prolene sutures in any way?

A. I was not asked to opine on that.

Q. Do you have any criticisms of Ethicon's sutures?

MR. JACKSON: Objection, asked and answered.

A. Again, I wasn't -- I haven't even thought about that.

BY MR. HUTCHINSON:

Q. Doctor, have you thought about whether or not sutures made out of Prolene oxidize in the body?

A. If they are made out of polypropylene, they oxidize in the body. That's a given.

Q. Doctor, do you know if Ethicon's sutures were approved by FDA as safe and effective?

A. I remember reading they were approved by FDA.

Q. Doctor, is it your opinion that every person who has a Prolene suture implanted in their body has an oxidized product in their body?

A. Of course, yes, I am.

Q. What about hernia mesh? Do you know how long hernia mesh has been on the market?

A. I don't know precisely. I know a long time.

Q. Is it your opinion that Prolene hernia mesh oxidizes in the body?

A. Yes.

Q. And it is your opinion that every person who has ever received a hernia mesh implant has

oxidized mesh in their body?

MR. JACKSON: Objection, form.

A. Yes.

BY MR. HUTCHINSON:

Q. Doctor, is it your opinion that every medical doctor who uses Prolene in the body is committing malpractice?

MR. JACKSON: Objection, form.

A. I'm not going to go there. I'm a plastics scientist. I'm not into that kind of stuff.

BY MR. HUTCHINSON:

Q. Do you believe that every medical doctor who is implanting Prolene in the body is doing something wrong?

A. They are probably relying upon the literature provided to them by Ethicon that said it's safe and effective and they are just relying on that, I presume.

Q. My question to you, though, is: Do you believe that doctors who implant Prolene in the body are doing something wrong?

MR. JACKSON: Objection, asked and answered.

MS. FITZPATRICK: Beyond the scope

of his opinions.

A. How can I opine on that? That's beyond my, what I'm asked to do here.

BY MR. HUTCHINSON:

Q. Can you answer that question?

A. I'd rather not. That's an opinion outside my area of expertise.

Q. Can you answer that question?

A. Can I answer it? I can give you an opinion for what it's worth.

MR. JACKSON: All asked and answered.

BY MR. HUTCHINSON:

Q. What's your opinion?

A. Are they doing something wrong?

Q. Yes, by using Prolene in the body as an implant?

MR. JACKSON: Objection, this is outside the scope of the report.

A. I don't think the doctor is doing anything wrong. He is just relying upon the information he has, his best judgment. I think Ethicon is doing something wrong but the doctor isn't doing anything wrong.

MR. HUTCHINSON: Move to strike as non-responsive.

MR. WALLACE: Move to strike because you don't like his answer.

MS. FITZPATRICK: How is that non-responsive?

MR. WALLACE: All right, we are close to done.

MR. HUTCHINSON: How much longer do we have?

THE VIDEOGRAPHER: 20 minutes.

MR. WALLACE: We may have some questions so you might want to reserve a couple minutes if you need it.

BY MR. HUTCHINSON:

Q. Doctor, let's go back to your expert report on Page 15. Are you there with me?

A. I am there, yes.

Q. Doctor, are these charts, say, for example, the chart on Page 15.

A. Yes.

Q. What do you call these charts?

A. OIT curves.

Q. Curves. Doctor, would you expect the

additives in Prolene to have an exothermic peak?

A. They will, but it's going to be barely detectable.

Q. Why would it be barely detectable?

A. Excuse me, I got to sneeze.

Because they are there in such low concentration relative to the polymer that like, when, for example, the DLTDP is oxidized from the sulfur or the sulfide to the sulfone, ultimately to the sulfoxide, that's an exothermic reaction. But the DLTDP is such low concentration, the instrument is not sensitive enough to detect it. So you get a slight elevation in the baseline.

This curve is not -- if I was to draw a perfectly horizontal line, you would see this deviating up slightly. That's probably the Santonox R and the DLTDP slowly oxidizing, but you really don't see a significant response until they are depleted and the polypropylene takes over.

Q. Is that the signs of the additives that you are seeing in your thermogram data?

A. Excuse me?

Q. Is that the signs of the additives that you are seeing in your thermogram data?

MR. JACKSON: Objection, form.

A. Signs?

BY MR. HUTCHINSON:

Q. Do you see any signs --

A. I would say it's an indication that they are reacting, yes, they are oxidizing.

Q. Just so the record is clear, what are you referring to specifically?

A. The slight, gradual elevation here is probably due to the antioxidants oxidizing, probably.

Q. That's at the curve, the DSC curve on the top of Page 15, correct?

A. Yes.

Q. Doctor, do you have any opinion regarding the specific concentration level of Santonox R and DLTDP that should have been in Prolene?

A. Just based upon the data sheet I was provided that gave me a target loading level.

Q. Right, but do you have an opinion about Ethicon's Prolene, about what the specific concentration level of Santonox R and DLTDP should have been?

MR. JACKSON: Objection, asked and

answered.

A. Should have been for the Prolene application?

BY MR. HUTCHINSON:

Q. Yes, sir.

A. My opinion is, it's not appropriate to use polypropylene, stabilized polypropylene with those additives in for that application. It's not appropriate.

Q. Can you tell us what additives if not Santonox R and DLTDP, can you tell us what antioxidants should have been used?

A. Let me restate. I do not know of any antioxidant stabilizer formulation that's totally non-extractable by oils and fats in the body that you could put into polypropylene and guarantee that it's going to last for decades in the body because they are going to be extracted from the surface. It is just a given basic polymer science.

Q. Can you tell the ladies and gentlemen of the jury what additives, specific additives should have been used if not Santonox R and DLTDP?

MR. JACKSON: Objection, asked and answered.

A. Again, I do not believe it's possible to stabilize polypropylene with any additives to make an implantable mesh product that would last for decades, just not going to happen.

MR. HUTCHINSON: I want to take just a quick break, go off the record.

THE VIDEOGRAPHER: We are off the video record. The time is 12:01 p.m.

(Recess.)

THE VIDEOGRAPHER: We are back on the video record. The time is 12:04 p.m.

BY MR. HUTCHINSON:

Q. Doctor, have you understood all my questions so far?

A. Yes.

Q. Is there anything about the testimony that you have given you would like to change?

MR. JACKSON: Objection, form.

A. Not at this point.

BY MR. HUTCHINSON:

Q. Has a court ever determined that you could not give an expert opinion?

A. That I could not?

Q. Yes.

A. Yes.
Q. How many times?
A. Twice that I'm aware of.
Q. In what circumstances?
A. One was a patent infringement matter involving, against Nike for a shoe sole design and because I had never designed shoe soles and didn't really have experience working with shoes or shoe soles, they deemed my testimony was not admissible.
And the other time was a portion of my testimony was deemed as being not admissible.
Q. In what particular instance?
A. See, that was Jarden versus Hearthmark, et al. Do you want to know the details of that?
Q. Yes.
A. Okay, it involved a company that decided to use hand sanitizer, this gel that we squirt from a bottle on our hands to sanitize them, to market that as a fire starter. So they used a bottle made out of PVC to dispense that and a child was using it to ignite a fire. And the flame came up the stream of gel as it was squirting out of the bottle, entered into the bottle, the bottle exploded and blew flaming gel all over him.

And I made the analogy of napalm. The judge said that wasn't acceptable.

Q. Doctor, on this DSC curve at the top of Page 15.

A. Yes.

Q. Is oxidation showing as a smooth transition from time 0?

MR. JACKSON: Objection, form.

A. On this one?

BY MR. HUTCHINSON:

Q. Yes.

A. Yes, that's typical, that's a smooth, normal transition, yes.

Q. But you would say that that is showing a smooth transition?

A. Yes.

Q. Did you do any resampling?

A. Any what?

Q. Resampling?

MR. JACKSON: Objection, form.

A. Yes, I had duplicates on a couple samples run, yes.

BY MR. HUTCHINSON:

Q. Did you do any retesting?

A. Retesting, I had the same mesh run a couple times, yes.

Q. But did you do any retesting of that particular DSC curve?

A. I don't understand what you are asking me.

Q. Did you do the test again to see if you could generate the same curve?

A. Oh, yes.

MR. HUTCHINSON: I don't have anything further.

MR. JACKSON: We'll just take about five minutes.

THE VIDEOGRAPHER: We are off the video record. The time is 12:07 p.m.

(Recess.)

THE VIDEOGRAPHER: We are back on the video record. The time is 12:20 p.m.

MR. JACKSON: I just want to note on the record that Dr. Priddy said that the materials that were available to him in this case were on the flash drive. They are not on that drive. We can provide those later if needed.

MR. HUTCHINSON: I'm sorry?

MR. JACKSON: The literature and the Ethicon documents are not on there, just his work papers.

MR. HUTCHINSON: This may be, where is the literature and documents?

MR. WALLACE: Since they were your documents, we typically don't include those, but if you want them, we'll give them to you. Typically, you guys don't like to be bothered with your own documents. That was the issue.

MR. HUTCHINSON: That was the reason they weren't included on the flash drive?

MR. WALLACE: Yes. I think we have done that before.

EXAMINATION

BY MR. JACKSON:

Q. Dr. Priddy, do you remember being asked some questions earlier about your work with AMS?

A. Yes.

Q. You were a fact witness in AMS?

A. I was, yes.

Q. You were not an expert?

MR. HUTCHINSON: Objection, leading.

A. Correct.
BY MR. JACKSON:
Q. You did not give an expert report?
A. Right.
Q. Mr. Hutchinson asked you earlier if you were an expert in various fields. Do you remember that?
A. Yes.
Q. What did you understand that word expert to mean to you?
A. That that was my primary job function of, specific area of expertise he was mentioning.
Q. But just because you said you are not an expert in a particular area doesn't mean you don't have knowledge and expertise in that area?
MR. HUTCHINSON: Object, form.
A. That is correct.
BY MR. JACKSON:
Q. Do you remember being asked some questions earlier about Steve Johnson?
A. Yes.
Q. Steve Johnson is someone who does this testing regularly; is that right?
A. Yes.

Q. You interact with people like Steve Johnson all the time in your professional career?
A. I do. I use laboratories all over the US and he is one of the, he's the lab I use for OIT. Depending on the core area of expertise of the lab, I will use different labs for different types of testing. I always use Steve for OIT and GC-MS analysis.
Q. So you rely on Steve's work regularly?
MR. HUTCHINSON: Form.
A. I do.
MR. HUTCHINSON: Counsel, if you will give me a just a second to lodge my objection. Form to the last question.
BY MR. JACKSON:
Q. Dr. Priddy, when Steve Johnson runs a test for you, it is your job to interpret that data?
A. That's correct.
MR. HUTCHINSON: Form.
BY MR. JACKSON:
Q. And you do that regularly in your profession?
A. I do.
Q. Do you recall Mr. Hutchinson asking you

some questions earlier today about the names of various Ethicon products?

A. Yes.

Q. Did the names of those products have anything to do with your opinions in this case?

A. No.

Q. Dr. Priddy, Mr. Hutchinson asked you some questions earlier today about Dr. Jordi. Do you remember that?

A. Yes.

Q. Can you determine anything about Dr. Jordi's report without seeing his data?

A. No.

Q. Can you evaluate the hypothetical that Mr. Hutchinson gave you earlier today without seeing Dr. Jordi's data?

MR. HUTCHINSON: Object to form.

A. No.

BY MR. JACKSON:

Q. Did anything you were asked by Mr. Hutchinson today change any of your opinions in this case?

A. No.

Q. Did anything that Mr. Hutchinson asked you

today change how you view your methodology in this case?

A. No.

Q. Why didn't you review any plaintiff medical records in this case?

A. It wasn't relative to my opinions, didn't affect my opinions.

Q. Dr. Priddy, you were asked some questions earlier about life expectancy of certain products. Do you remember that?

A. Yes.

Q. Can you explain for the jury why you did your testing in this case?

A. Yes, I was looking specifically at the product variability. Normally, when products are manufactured, they are manufactured to a specification to minimize variability and I just wanted to see if these products, these mesh products were highly variable in their oxidation resistance or if they were all very similar in their oxidation resistance.

Q. Do you remember being asked some questions earlier about how blood in the body interacts with these products?

A. Yes.

Q. Is it fair that you need to understand how chemicals in the body interact with these mesh devices to offer your opinions in this case?

MR. HUTCHINSON: Object to form.

A. Well, just the fact that knowing that I do, that bodies contain chemicals which are fats and oils and have the capability to plasticize and extract and affect the properties of plastics that are implanted in the body, the nature of these chemicals, the types of chemicals they are, I understand that and how those types of chemicals interact with materials. That's all part of my core area of expertise.

BY MR. JACKSON:

Q. Dr. Priddy, as the founder and CEO of Plastic Expert Group, what do you do professionally?

A. Consult, serve as an expert witness. Companies are constantly sending me plastic parts that have failed and ask me to figure out the root cause of the failure and make recommendations to them once I determine the cause why they are failing, how to fix it, how to remediate, how to redesign the part, change the material, do what

needs to be done so they don't have failures anymore.

Those are the three main -- it all has to do with plastics.

Q. In your profession, you provide consulting services to medical device companies?

A. I do.

Q. You have been hired by medical device companies to work on implantable medical devices?

A. Correct.

Q. You have provided expert testimony on behalf of medical companies?

A. Expert testimony -- most of my work has been consulting. I'm trying to think. Of course, the AMS work I did, my recollection is they were trying to get FDA approval on a mesh product and they asked me to opine, to evaluate and opine on the usefulness of accelerated laboratory testing of their packaging of their device.

So it wasn't part of a litigation, it was part of a petition to the FDA. And I was -- as far as being hired by a medical device manufacturer, to my knowledge, it's all been consulting work except for that.

Q. Is the work you have done for medical device companies any different than the work you have done in this case?

A. I have run OIT testing for medical device companies to, for example -- can I give an example?

Q. Sure.

A. Spectranetics was having a problem with degradation of one of their tubing materials that was failing, medical tubing. So they had me do a failure analysis and I determined that the tubing had degraded.

And so I ran OIT testing to determine if it was an oxidation issue, for example. So to answer your question, it's a little bit different, but I'm using the same kinds of tests, yes.

Q. You have run OIT tests for medical device companies?

A. Yes.

Q. You did an OIT test in this case?

A. Yes.

Q. Is there anything special or unique about the antioxidants used in the Prolene mesh?

A. No, they are just basic workhorse antioxidants.

Q. You have published peer-reviewed literature discussing antioxidants in plastics?

MR. HUTCHINSON: Object to form.

A. Yes, I have.

BY MR. JACKSON:

Q. Have you done work with antioxidants as part of your day job in your profession?

A. Yes.

Q. Your opinions in this case are based on your professional expertise as well as the documents you have reviewed in the peer-reviewed literature?

MR. HUTCHINSON: Object to form.

A. That's correct.

BY MR. JACKSON:

Q. The plaintiffs in this case asked you to opine on the chemical stability of Prolene; is that right?

MR. HUTCHINSON: Form.

A. Yes.

BY MR. JACKSON:

Q. If Ethicon had reached out to you 15 or 20 years ago and asked you to do the same thing, if they had asked you to offer the same -- strike that.

If Ethicon had reached out to you 15 or

20 years ago and asked you to offer the same opinions for them, would you have done it?

A. Yes.

Q. Would you have run the same tests and analysis that you have run in this case?

A. Most likely.

Q. Is the testing and analysis that you have done in this case widely accepted in your industry?

A. Yes.

Q. As someone who has worked for medical device companies, is accelerated aging testing alone sufficient to determine the suitability of a material?

A. No.

Q. Why not?

A. Because it is only an approximation. It just lets you know if there is a red flag there that needs to be followed up on or not.

Q. Why did you review Ethicon documents in this case?

A. I wanted to see the kind of testing that they performed and the data they generated on their Prolene mesh products.

Q. You are not a medical doctor?

A. No.

Q. So why are you here to offer an opinion on a medical device?

A. Because the medical device is plastic and I'm a plastics expert.

Q. Dr. Priddy, you were asked a lot of questions earlier today about both DLTDP and Santonox R. Do you remember that?

A. Yes.

Q. Does the presence of either of those antioxidants in the Prolene mesh alter your opinions in this case?

A. No.

MR. HUTCHINSON: Are you done?

MR. JACKSON: I have no more questions.

MR. HUTCHINSON: I got a couple of follow-up questions.

EXAMINATION (Continued)

BY MR. HUTCHINSON:

Q. Doctor, you testified that you were deposed in the AMS litigation as a fact witness? Did I understand that correctly?

A. Yes.

Q. What did you witness?
A. I didn't write a report. I had done work as a consultant for AMS and so I was deposed, I guess, to just talk, as I recall, just talk about polypropylene oxidation and stability.
Q. Was it a patent type litigation or was it a personal injury type of litigation?
A. I think it was a class action litigation against AMS for their meshes, as I recall.
Q. What was the substance of your testimony in the AMS litigation?
MR. JACKSON: Objection, form.
BY MR. HUTCHINSON:
Q. Just in general.
A. It was generally similar to this, the oxidative stability of polypropylene. It was focused pretty much on chemistry of oxidation of polypropylene.
Q. But you were not designated as an expert in that litigation; is that correct?
A. That's correct.
Q. Did you have a lawyer representing you?
A. Representing me, I had one that hired me.
Q. What did that lawyer hire you to do?

MR. JACKSON: Objection, form.

A. Just deposed me just as a consultant on the issues involving polypropylene oxidative chemistry.

BY MR. HUTCHINSON:

Q. What's the name of the lawyer that hired you?

A. Ed Wallace.

Q. What did Ed Wallace ask you to do?

A. Just deposed me and asked me a bunch of questions during the deposition.

Q. Ed Wallace asked you --

A. I'm sorry, the AMS attorney asked me. Ed Wallace asked me some questions too, I believe, but yes.

Q. My question is specifically, sir: Were you designated as an expert in the AMS litigation?

MR. JACKSON: Objection, asked and answered.

A. No, sir, I don't believe so.

BY MR. HUTCHINSON:

Q. Did you provide anybody expert opinions in any type of deposition?

MR. JACKSON: Objection, form.

A. That deposition I presented information, yes.

Q. As an expert?

MR. JACKSON: Objection, asked and answered.

A. I assume I was considered a plastics expert.

Q. What were your opinions regarding degradation in the AMS litigation, sir?

A. You know, that was what, three years ago. I don't recall the details. All I remember, it had to do with polypropylene oxidation.

Q. Did it have anything to do with vaginal mesh?

A. I don't even remember that, too long ago.

Q. That was within the last three years?

A. That was about three years ago, I believe.

Q. Did you do any testing of AMS mesh?

A. No, sir.

MR. HUTCHINSON: Let's call it a day. Thank you, sir, for your time.

THE VIDEOGRAPHER: Now off the video record, the time is 12:37 p.m.

(Deposition concluded: 12:37 p.m.)

E R R A T A S H E E T

Pursuant to Rule 30(e) of the Federal Rules of Civil Procedure and/or the Official Code of Georgia Annotated 9-11-30(e), any changes in form or substance which you desire to make to your deposition testimony shall be entered upon the deposition with a statement of the reasons given for making them.

To assist you in making any such corrections, please use the form below. If supplemental or additional pages are necessary, please furnish same and attach them to this errata sheet.

- - -

I, the undersigned, DUANE PRIDDY, do hereby certify that I have read the foregoing deposition and that to the best of my knowledge said deposition is true and accurate (with the exception of the following corrections listed below).

Page No._____Line No._____should read:_____

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Signature _____

Sworn to and Subscribed before me

_____, Notary Public.

This _____ day of _____, 20___.

My Commission Expires:

C E R T I F I C A T E

G E O R G I A:

HENRY COUNTY:

I hereby certify that the foregoing deposition was reported, as stated in the caption, and the questions and answers thereto were reduced to the written page under my direction; that the foregoing pages 1 through 168 represent a true and correct transcript of the evidence given. I further certify that I am not in any way financially interested in the result of said case.

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This, the 9th day of March, 2016.

_____

MAXYNE BURSKY, CCR-2547